EACH ACCORDING TO THE DICTATES OF HIS OWN CONSCIENCE

NORMAN ROCKWELL

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Famous Artists Painting Course
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Section **13**

Artistic anatomy

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MICHELANGELO. Studies for the Libyan Sibyl

This magnificent page of studies shows how anatomical detail can be expressed without letting it destroy the form, the action, or the aesthetic quality of the conception.

Artistic anatomy

The human figure is nature's most marvelous accomplishment. It has a simplicity that can be appreciated by everyone, yet its mechanism is so mysterious that without a knowledge of anatomy it is hard to understand and harder still to draw.

This is the reason that we, as artists, must study and learn the artistic anatomy of the figure – the knowledge we gain will help us to make convincing drawings or paintings of the human form in every position, in every action or attitude.

In this section we will train you in only the essentials of figure construction and anatomy. The art student is not the student of medicine – it is neither necessary nor desirable for him to learn the complete details of the functions and actions of every individual muscle, tendon and bone in the body. However, we will cover all the fundamental requirements in figure construction which are important to your training. We will leave out the nonessentials.

Bones and muscles have a distinct bearing on the outward appearance of the body and on the actions the body can perform. So, in this section, we are going to show you how the bone and muscle structure works and what it looks like in action as well as repose. As you study and draw, remember to start with the basic figure. Use the bone and muscle structure to refine and modify the simple basic figure forms – to make them more lifelike. Never lose sight of the fact that your study of anatomy is a study of three-dimensional forms. These bones and muscles are not flat bands or lines beneath the skin – they are solid forms that protrude from the basic figure (like the bony kneecap or the biceps when you flex your muscle) or cut back into it (like the socket in which your eye is set).

From experience we know that beginning students of anatomy have a tendency to lose sight of the basic form of the figure when they start to study anatomy. You can avoid this error if you will look back through Section 10 and ahead to pages 24 and 25 of this section to observe that the basic figure needs very little addition or refinement of form to turn it into a real human being.

Do not make the mistake of thinking that the more bones and muscles you put in, the more real your drawing will appear. Instead, spend your time in a careful study of each stage of your drawing. As you work, ask yourself: "Have I made these figure forms too simple – is my drawing nothing but another basic figure – or have I put in too much detail and destroyed all the form, ending up with a medical chart instead of a figure drawing?" The ideal, of course, lies between these extremes. One of the best ways to judge how well you are using your knowledge of artistic anatomy is to study the examples of figure drawings and paintings by members of your Faculty and compare them with your own.

When you study the figure in action, you will observe that an amazing variety of action is disclosed in every movement, yet these movements do not in the least alter the basic construction of the figure. Many of the variations of small forms and structural details which are significant in their places are lost in the larger and basic form of some stronger action. Always remember this important fact, for with this broad point of view you will avoid many problems in drawing the figure.

Again, we wish to point out that you are a student of art, and not of medicine. Memorizing the names of the bones and muscles is not an important part of your study of anatomy. In some cases a certain amount of this is unavoidable, but most of your time and interest should be devoted to studying and drawing the forms and actions of the bones and muscles as they affect the outward appearance of the figure.

You will find that you can draw clothing much more convincingly if you know the form beneath it, and how it changes with different actions. Many times you have seen a drawing of the figure in which the clothing or drapery has been beautifully handled – but it seems to have no connection with the figure it is supposed to clothe. The reason for this is that the artist did not have enough knowledge of the figure itself before he drew the drapery, so that he could not make you "feel" the figure underneath. The forms and directions which drapery takes are almost always entirely dependent upon the structure and action of the figure underneath. Since most of the figures you will draw will be clothed, this is another reason for studying simple anatomy.

You cannot disregard the great importance of anatomy in figure drawing any more than you can build a house and disregard its foundation and the basic construction in it which holds the house together – from the inside. Anatomy is fundamental in figure drawing. It will help you to know the figure and interpret it, both from life and photographs. As you improve your knowledge of anatomy you will be able to draw better from memory, too. You will not be limited to showing the figure in just a few attitudes, but will be able to draw it skillfully and confidently in any action you wish to portray.

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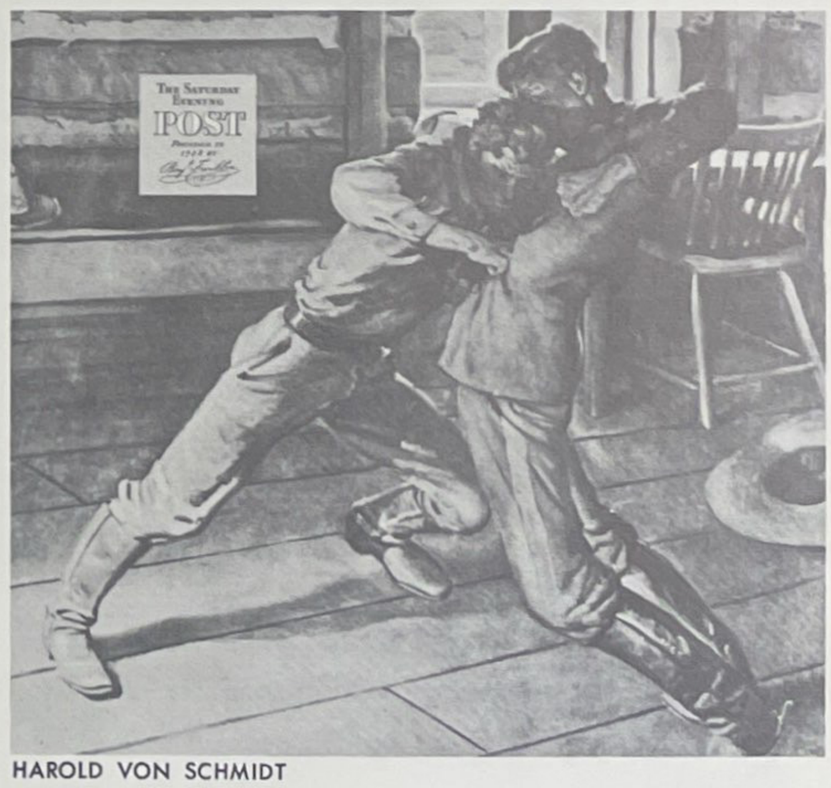
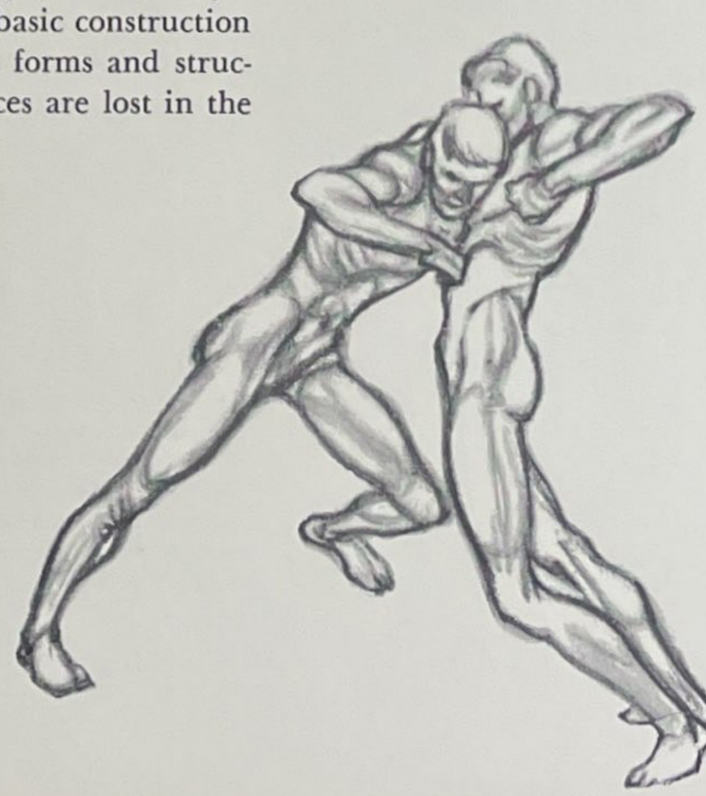


HAROLD VON SCHMIDT

The figures in the painting above are based on a sound knowledge of anatomy – as is proved by the drawing of the same figures in the nude. Only when we know artistic anatomy can we draw the figure in every pose and make it look convincing – clothed or not.



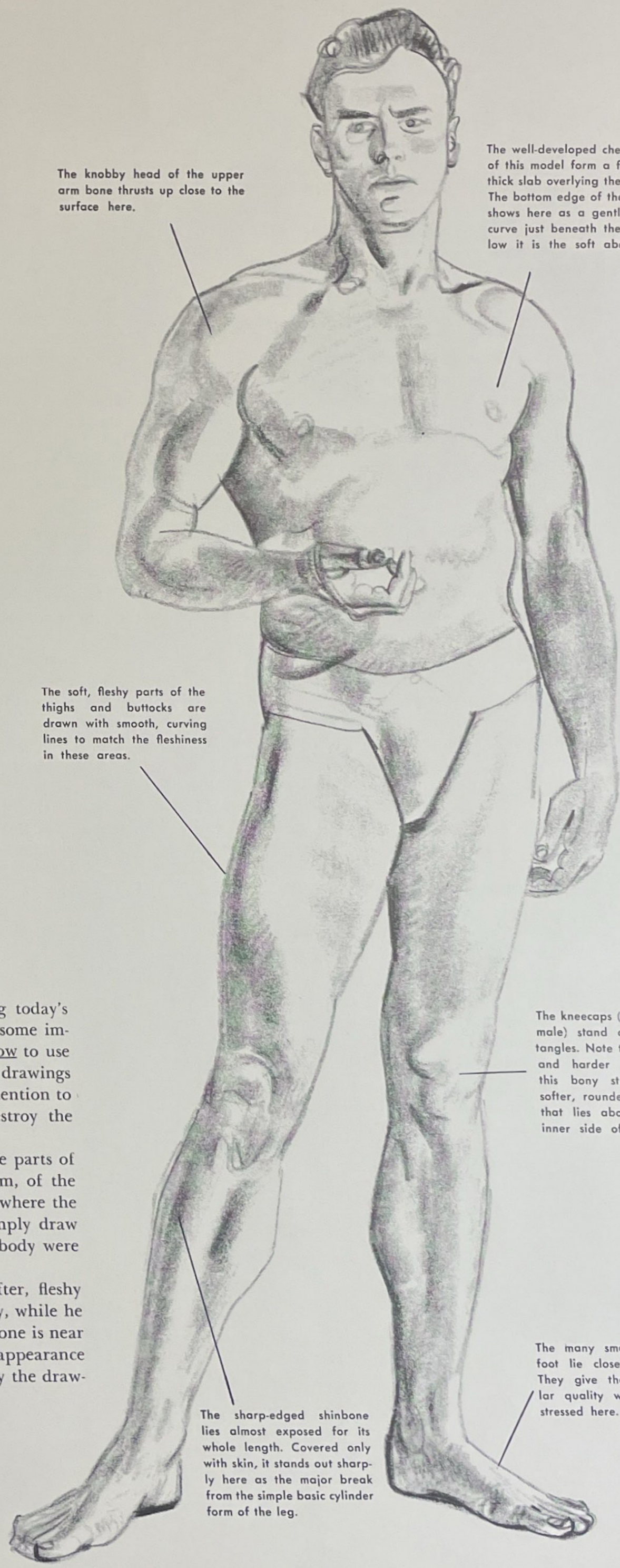
By applying a knowledge of simple anatomy to the basic form figure above, we can change it into real, lifelike figures like the ones shown here.

Bones and muscles affect the surface of the figure

Robert Fawcett, one of the greatest draftsmen among today's professional artists, made these drawings to show you some important points to look for in studying anatomy and how to use them in drawing the human figure. Although these drawings are based on anatomical knowledge, in no sense has attention to anatomical details been permitted to weaken or destroy the solid form of the figure.

Fawcett's drawings show he is clearly aware of those parts of the body surface where the bone determines the form, of the parts where the firm muscle creates the contour, and where the body is soft and fatty. In other words, he doesn't simply draw the whole figure with a uniform line, as though the body were an unvarying fleshy mass.

Notice that the artist's pencil lines along the softer, fleshy parts of the body actually have a soft, curving quality, while he uses stronger, more angular accents to indicate that bone is near the surface. His sensitivity to the difference in the appearance of fleshy forms and bony ones is the main reason why the drawings appear lifelike.



The knobby head of the upper arm bone thrusts up close to the surface here.

The well-developed chest muscles of this model form a firm, even, thick slab overlying the rib cage. The bottom edge of the rib cage shows here as a gentle, broken curve just beneath the skin. Below it is the soft abdomen.

The soft, fleshy parts of the thighs and buttocks are drawn with smooth, curving lines to match the fleshiness in these areas.

The kneecaps (particularly in the male) stand out as bony rectangles. Note the straighter lines and harder edges separating this bony structure from the softer, rounded mass of muscle that lies above it toward the inner side of the leg.

The sharp-edged shinbone lies almost exposed for its whole length. Covered only with skin, it stands out sharply here as the major break from the simple basic cylinder form of the leg.

The many small bones of the foot lie close to the surface. They give the foot an angular quality which Fawcett has stressed here.

The crisp, angular line on the knee-cap points up the bony contour.
This slight bulge marks the bottom of the rib cage in back.
The bottom of the rib cage is indicated by these accents.
The bony sternum or breast-bone with its attached ribs shows close to the surface here.
The bone of the elbow is drawn with sharp, crisp lines that contrast with the softer lines used for the fleshier parts of the arm.
The outer bone of the lower arm comes close to the surface as it nears the wrist. Fawcett accents this with a heavier, straighter line.

Structure is more subtle in the female

Exactly the same principles hold true in drawing the female figure as in drawing the male. Although the differences between bone, muscle and soft flesh are not quite so obvious and easy to distinguish in the female, these differences do show on the surface and should be looked for and drawn by the artist.

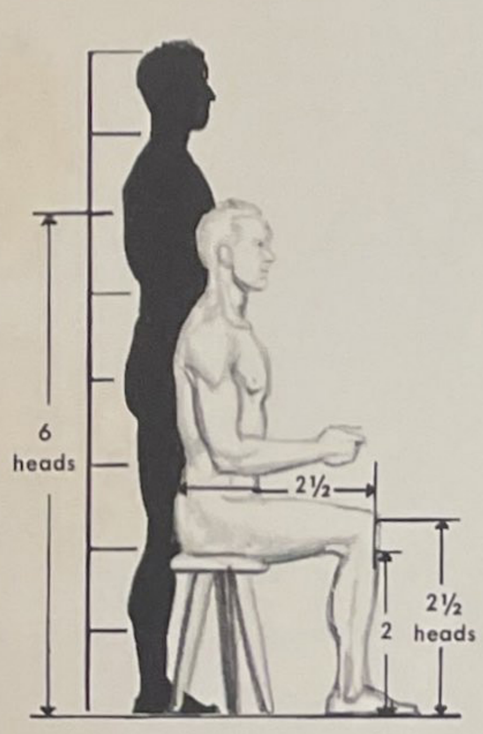
The bones and muscles of the female are smaller and the normal figure is more fleshy, which accounts for the less obvious structure. This, however, makes it all the more important for you to recognize whether a contour or plane is flesh or bone.

Note the difference in outline — especially at the shoulders and hips.

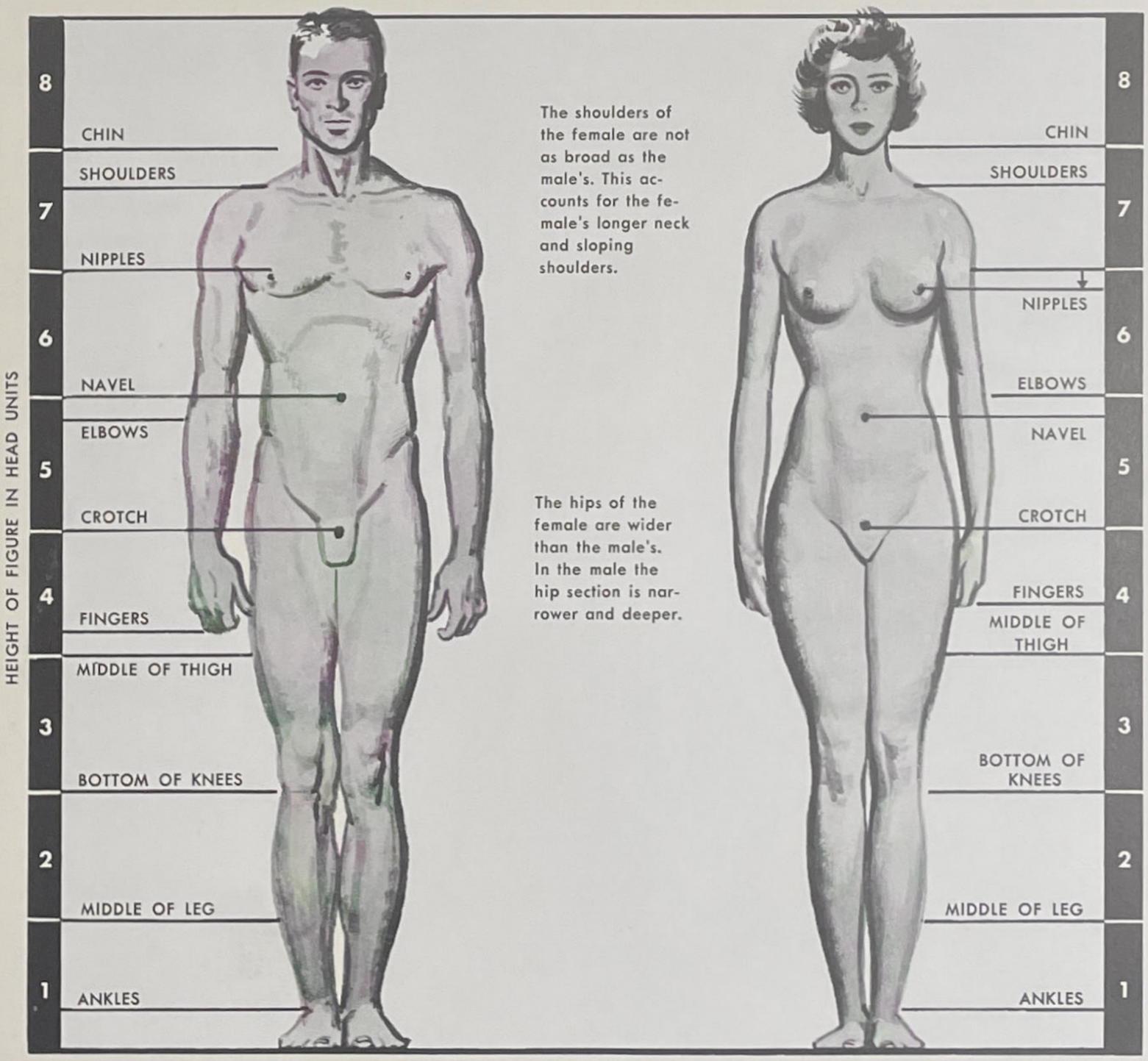
Relative proportions of the adult figure

The height of the figure should be about "8 heads" and is to be divided as follows: one "head" for the actual head, about ⅓ of a "head" for the neck and 2⅔ "heads" for the torso. This brings you 4 "heads" or halfway down the figure to the crotch, which is the middle of the figure. From this point down, it is 2 "heads" to just below the knee, and 2 "heads" from this point to the floor. Study these divisions in detail in the pictures. While the outline of the female figure differs very much from the male and though it is usually shorter, the same "8 heads high" proportion still holds true with very slight differences.

The bones of the male are longer and they have more rough surfaces than those of the female. The "breastbone" or sternum is longer and less curved. The pelvis or "hip section" is narrower and deeper — this makes the male much narrower in the hips than the female. The distance from the pelvis to rib cage or "upper body" is



In sitting, the figure loses about two heads in height.

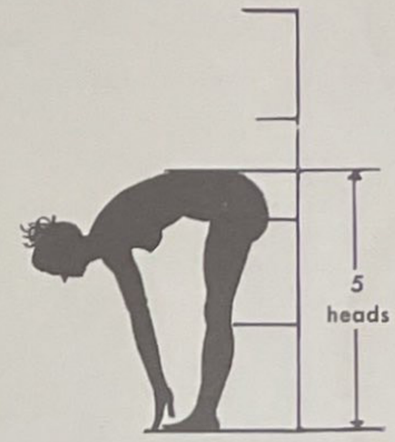


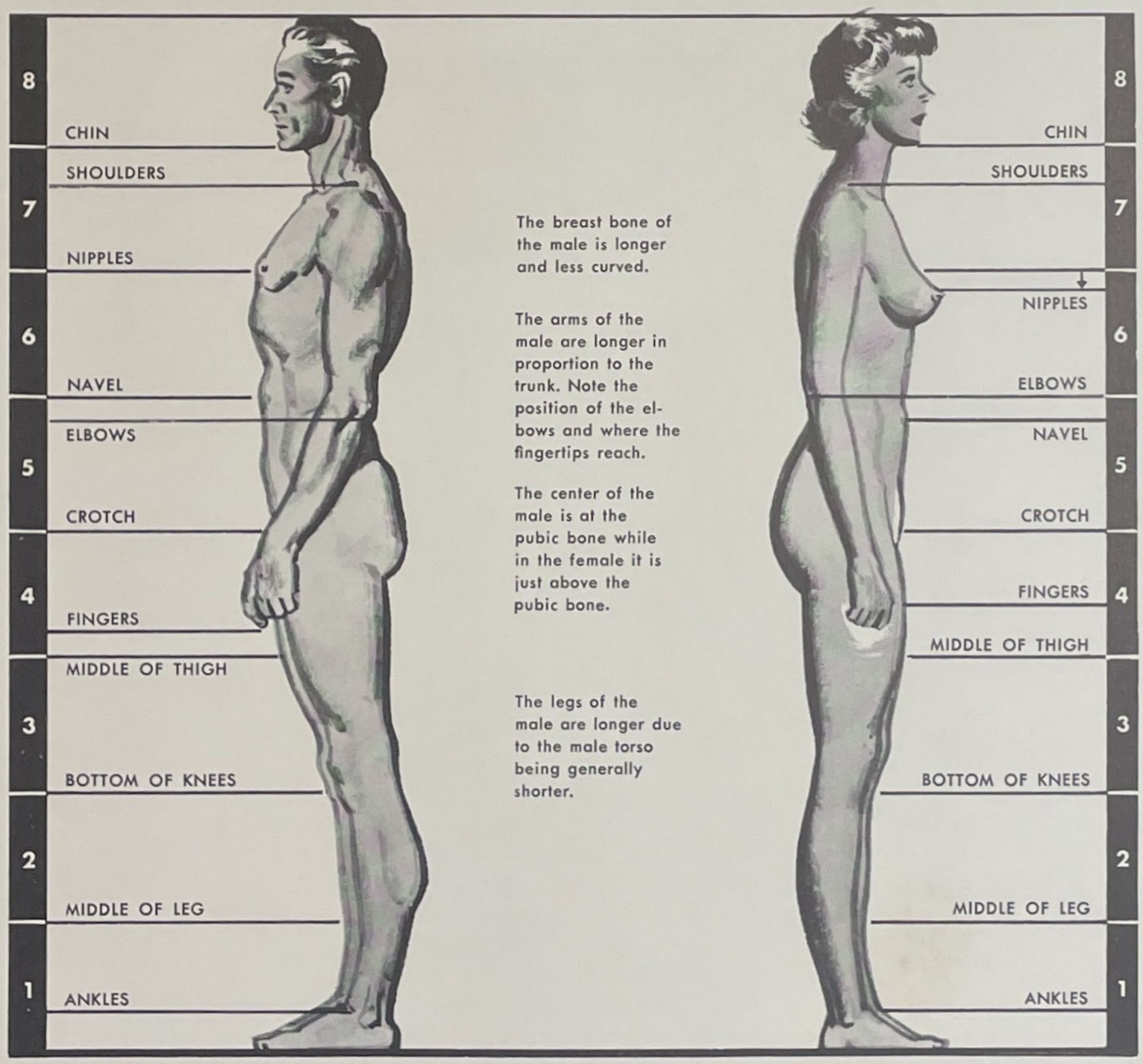
While the female is generally shorter than the male — to simplify the chart we show you the figures at the same height, since the "8 heads" measure applies to the proportions of both figures.

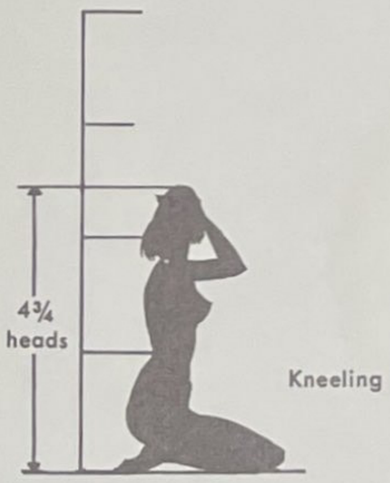
shorter in the male due to the deeper and narrower pelvis. In the female, the shoulders are not as broad and the collar bones shorter and straighter: this accounts for the more sloping shoulders and the longer and more graceful neck in the female.

The male arms are longer in proportion to the trunk than those of the female due to the longer humerus or "upper arm bone" and because of this the elbow is lower. The length of the torso in the male is proportionately shorter than that of the female. The legs are longer and the skull larger. The center of the male figure is at the pubic bone (just above the crotch) while in the female it is slightly higher. The width of the female hips is about equal to the width of the chest and one arm combined, and they are wider than those of a male of the same height.

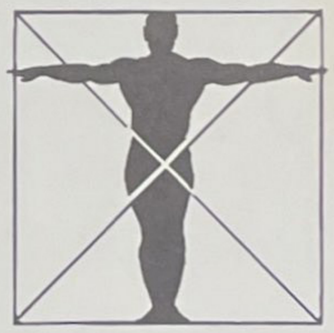
In the female, the muscles in the area of the hips are not well defined, partly because of their less vigorous use, but mainly because of a larger quantity of fat, which is especially thick over the thighs, the hips and the buttocks.

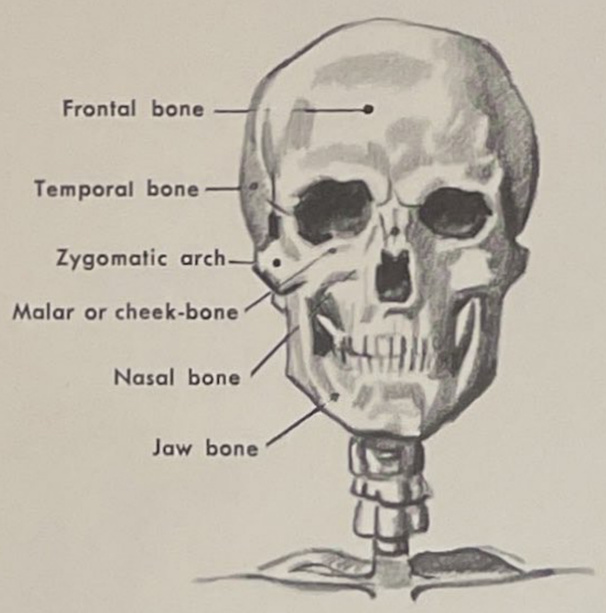


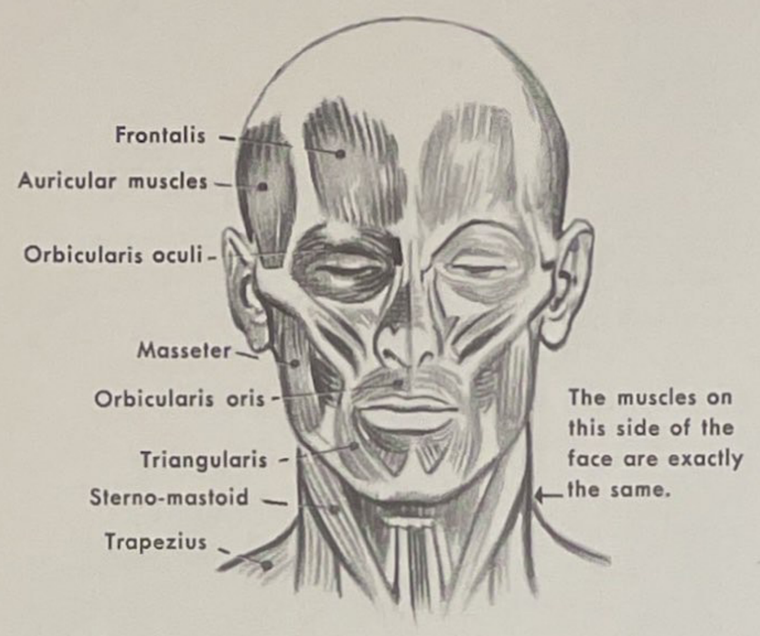


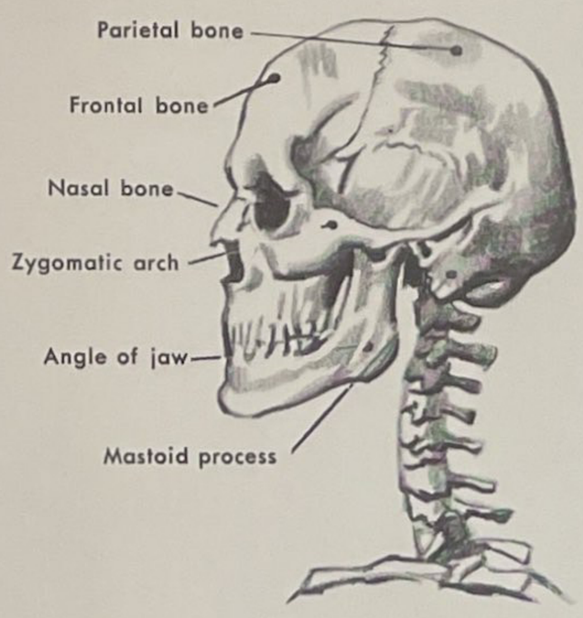


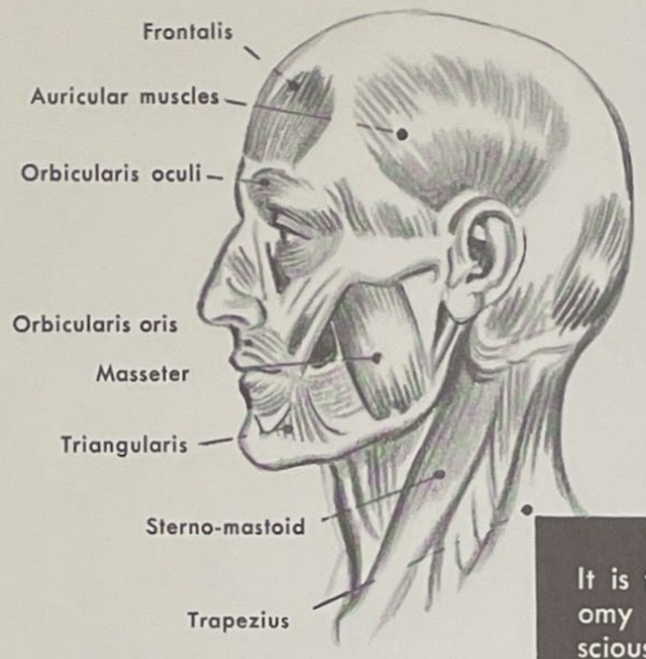
If you always remember that the center of the figure is at the crotch, you can judge how many heads high the figure should be when drawn in different attitudes.

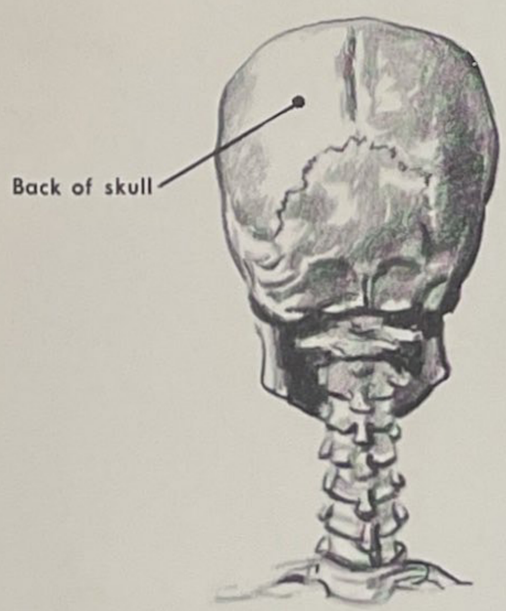


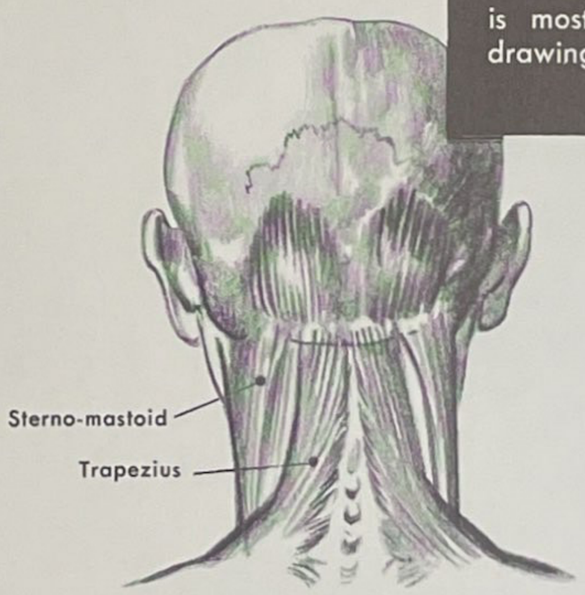


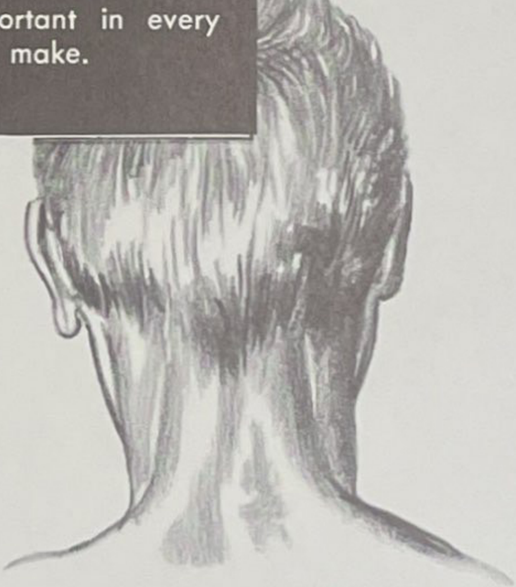












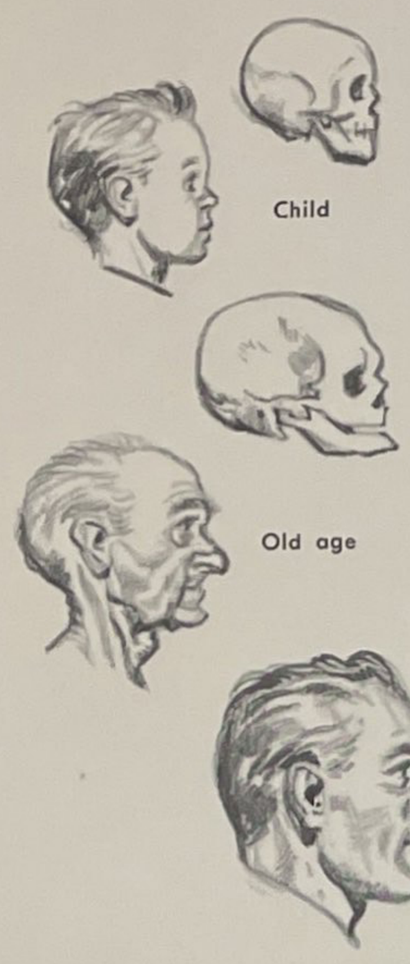
It is the knowledge of anatomy rather than the conscious application of it that is most important in every drawing you make.

The head and neck — skull and muscles

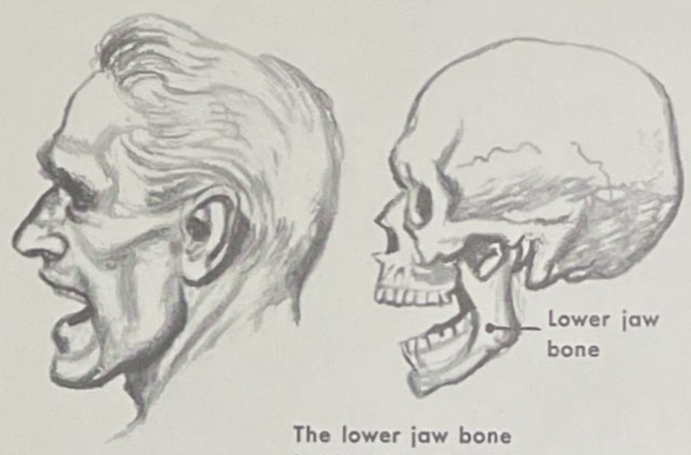
The hard bone structure of the skull is the shape-giving form which gives all human heads the same general appearance. However, the shapes of skulls vary greatly, especially in different races of men as well as in different parts of the world. There are the wide-headed men and the long-headed men — but no matter what the geographical origin or general appearance is, the basic structure of the skull, as well as the structure of the muscles over it, is the same in all human beings. As you study the skull and the muscles of the face, remember that they merely modify the simple solid structure of the form head you drew in an earlier section. A drawing of the head must be just that — a drawing of solid form, not a chart of the individual muscles beneath the surface.

Study the skull carefully and memorize the different surfaces and parts. Then note how the muscles fit over these various areas and how they finally affect the shape and character of the finished head as we see it every day.

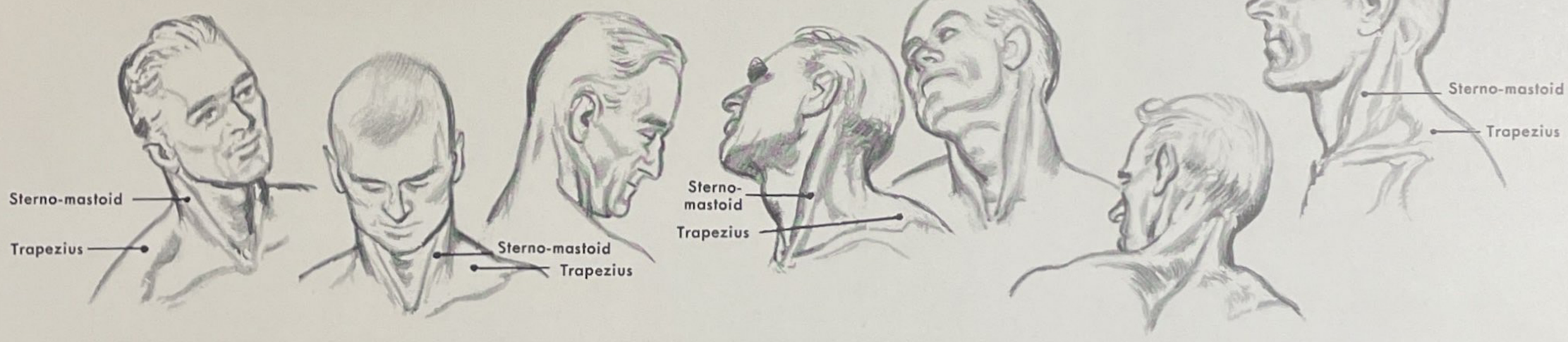
The shape of the neck, like that of the head, varies greatly in different individuals. It may be long or short, thin or fat. In the female, owing to the lack of any great muscular development, it is usually round and smooth. In the male, and especially in athletic and old men, it will show well-defined and prominent muscles. These are much more pronounced when the neck is in action. While the neck has so many variations of shape and size, like the head, its basic anatomical and muscular construction is always the same in all human figures.



The shape of the skull varies a great deal in the different races of man and especially in the different age groups.



The lower jaw bone is hinged in front of the ear on both sides of the head.



Study carefully the actions and movement of the muscles in the neck as they twist, turn and move up and down. The most pronounced muscle which influences the appearance and action of the neck is the sterno-mastoid. It starts in back of the ears and reaches to the pit of the neck. The trapezius is another important muscle greatly influencing the shape and action of the neck.

BEN STAHL

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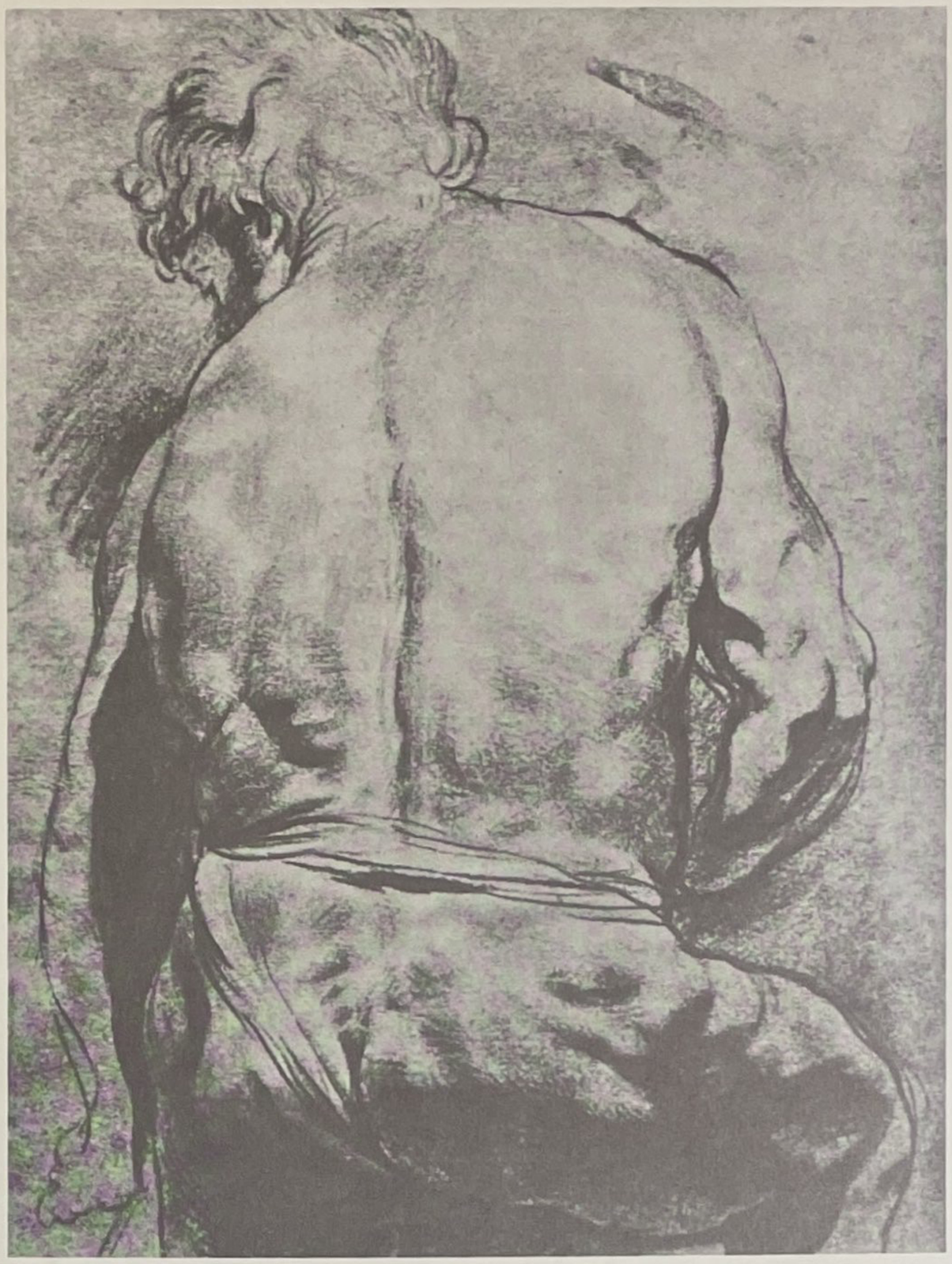
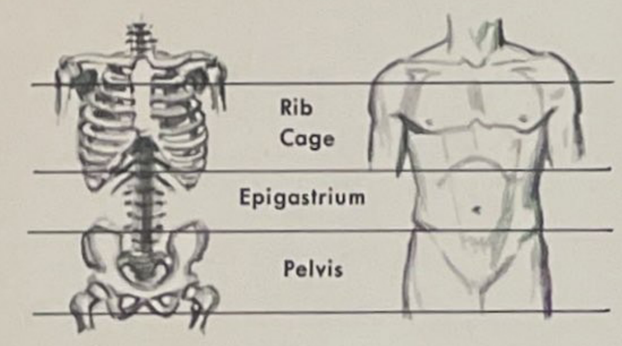
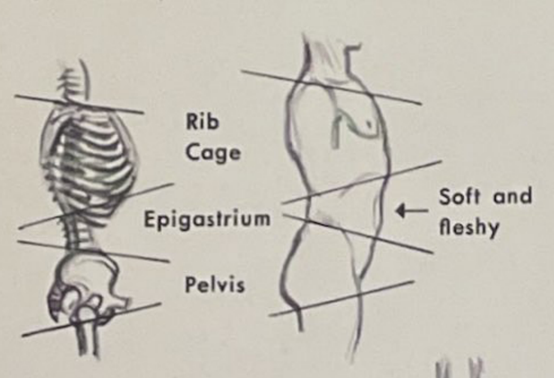
JON WHITCOMB

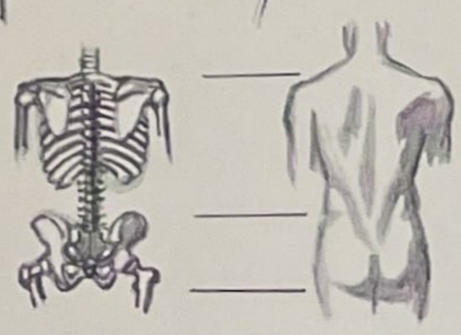
Muscles in the female neck, while they are the same, are much less prominent than the male's.



The artist is often called upon to make pictures in which anatomy plays an important part. These convincing figures by Rubens owe much to the careful study he made of the human body.







Seen from the back the trunk consists of two parts.

The torso

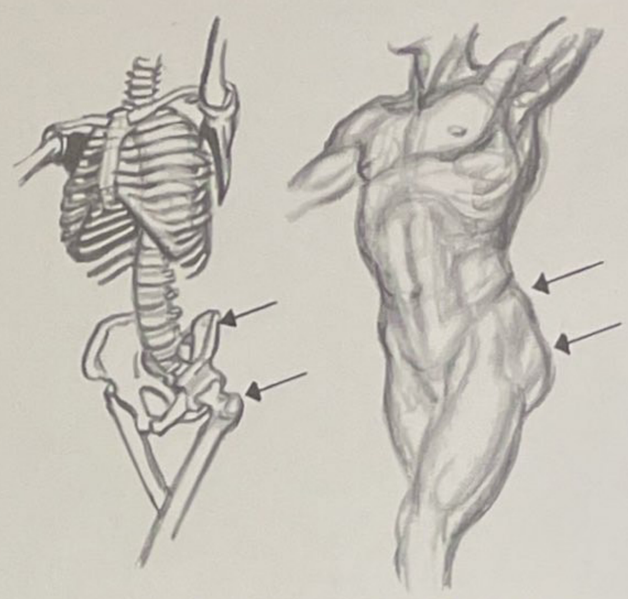
To understand the torso, it must be studied and drawn from many angles. The torso, from the front, is made up of three masses: the chest, the abdomen, and the pelvis. Between the chest and the abdomen we have the epigastrium (the upper part of the abdomen). The rib cage or chest is shaped like a cone with the base below. The upper portion of the rib cage appears broader than it actually is, due to the presence of the shoulders and collar bones. This, to a great extent, causes the shape of the actual rib cage to be lost from view. The chest and pelvis are fairly stable; the epigastrium portion is quite movable.

When seen in profile, the three sections of the trunk are even more apparent: the upper part containing the rib cage, the central part containing the abdominal mass, and the lower part, which contains the lower portion of the abdomen and the pelvis.

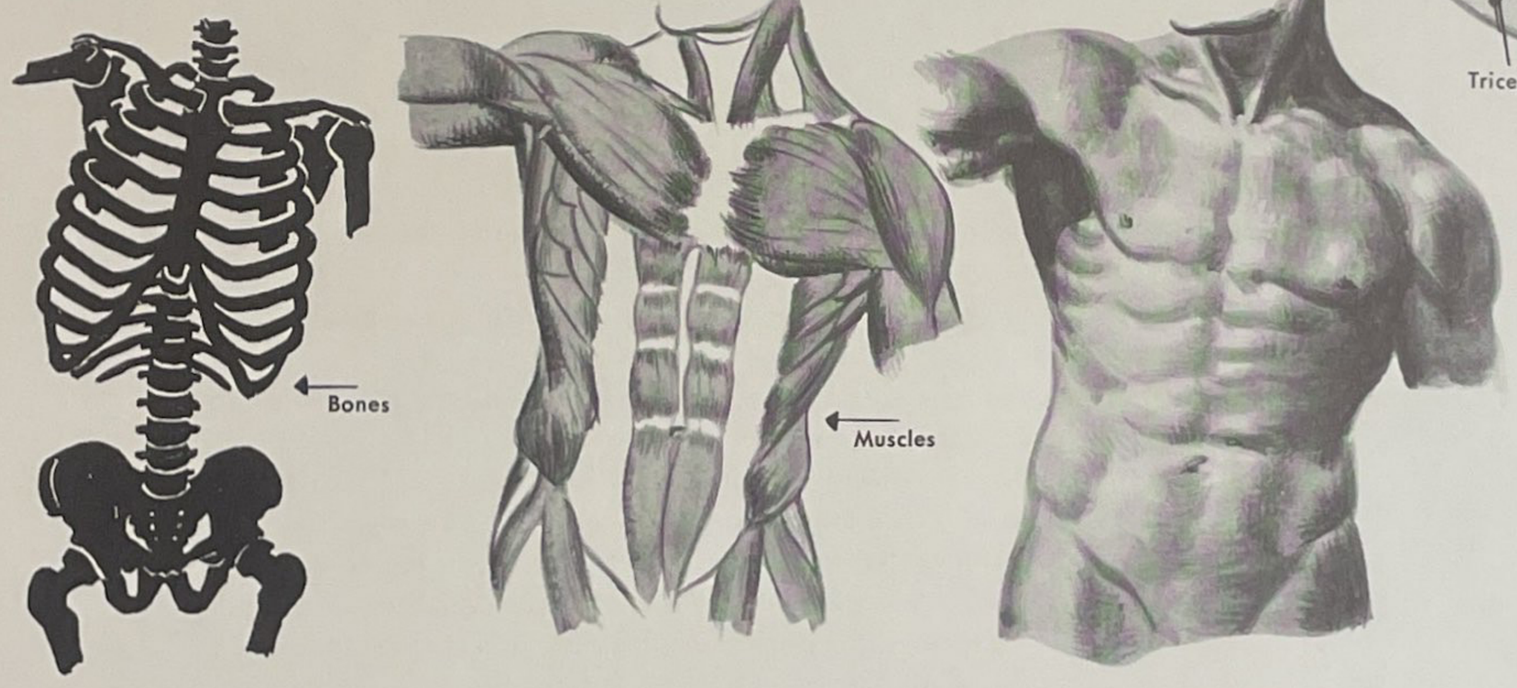
The trunk, when seen from the back, consists really of two parts: the back of the thorax (rib cage) and the loins or back of the abdomen. The difference between these two areas is not so obvious from behind as it is in front, where the top of the abdomen is marked by the lower margin of the ribs.

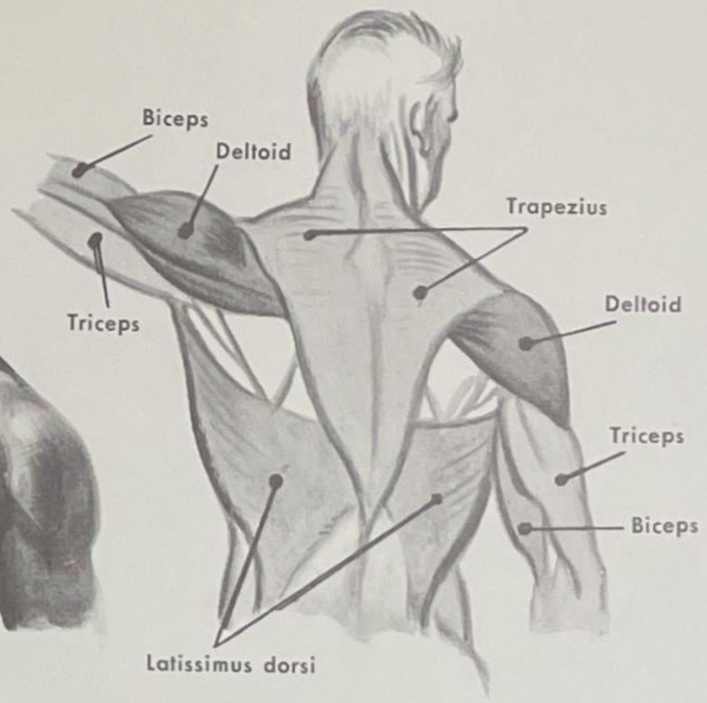
The only bony form in the central mass of the torso is the part of the spinal column in the small of the back connecting the upper region to the lower one. In the lower region the bones are deep seated and heavy, showing on the surface and affecting the external form at certain points. These points are at the crest of the pelvis, the coccyx (lowest tip of the spine), and the head of the femur (thigh bone).

The upper part of the torso is quite remarkable for its bony character. The rib cage, the sternum, the scapula (shoulder blade) and clavicles (collar bones), supported by the spine, enclose and protect the vital organs of the body. The muscles that cover this bony form greatly influence the planes and the effect of light and shade in constructing the figure. The abdominal area between the rib cage and the pelvic mass is fleshy, except for the spinal column. The movement of the vertebrae of the spine is visible along its course down the center of, and especially at the small of, the back. The scapula (shoulder blade) slides against the surface of the rib cage in any direction and may be lifted from it so that it becomes quite prominent under the skin. More than one-half the entire movement of the shoulder is caused by the scapula.

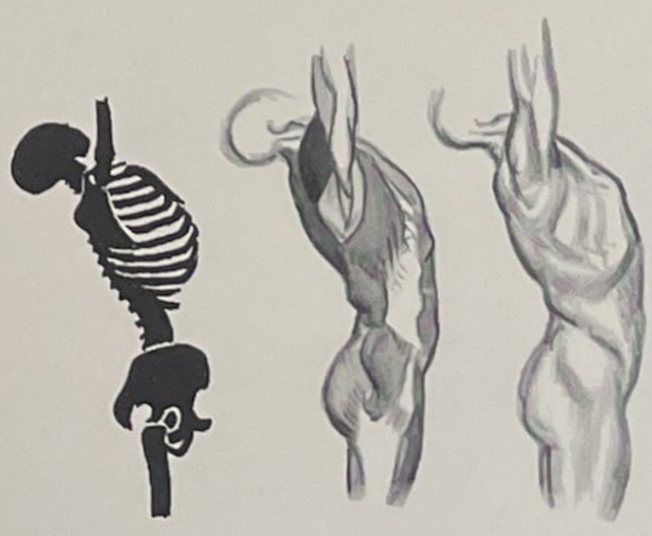


Arrows point to crest of pelvis and head of femur and show where they affect contour of hips.



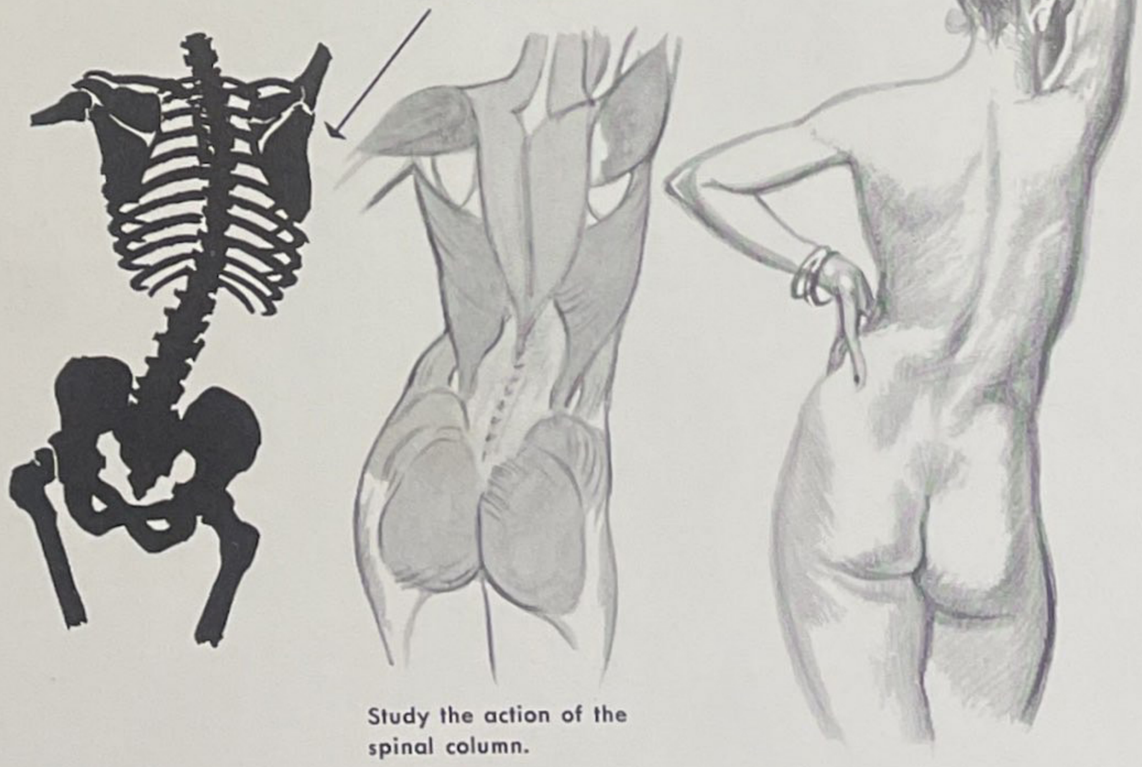


Memorize these most important muscles of the back.

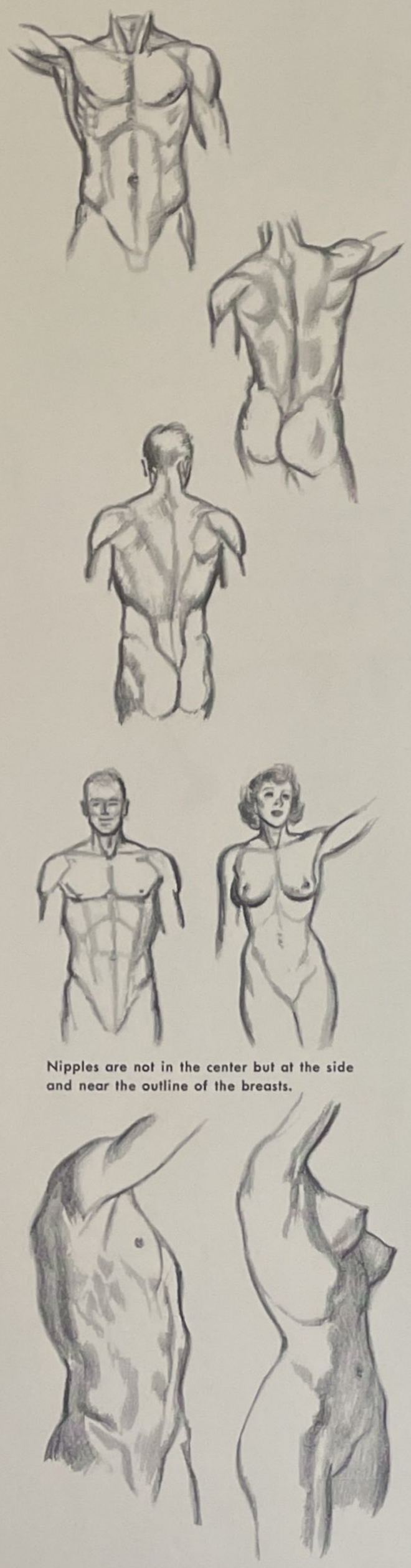


The abdominal area between the chest and pelvis is fleshy and allows for considerable movement.

The scapula (shoulder blade) slides against the rib cage in any direction.



Study the action of the spinal column.



Nipples are not in the center but at the side and near the outline of the breasts.

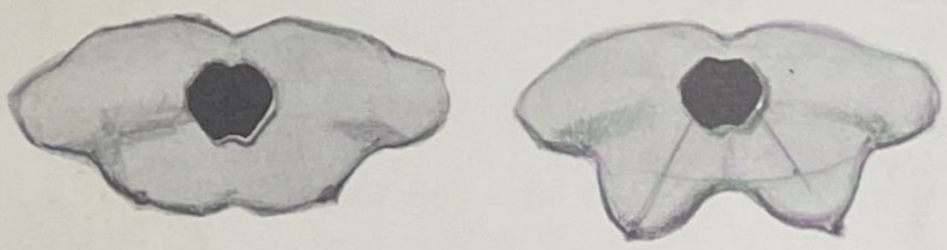
The front of the torso is divided by a furrow that runs vertically down the length of the torso, dividing it evenly in two. It begins at the pit of the neck between the clavicles (collar bones) ; as it passes over the breast it marks the breastbone and is deepened here considerably by the pectoral (chest) muscles on either side. At the end of the rib cage it marks the epigastric pit (where the rib cage diverges), this point being about one-third down the torso. The next third down brings us to the navel, and the last third ends at the symphysis (at about the pubic bone).

A similar vertical furrow marks the center of the back for its full length. The depth of this furrow is caused by the large mass of muscle which projects on each side of it and gradually increases in width but loses in prominence as it progresses upward. At the upper part of the buttocks the furrow gives place to a slightly depressed area, below which it again becomes the deep furrow which separates the buttocks.

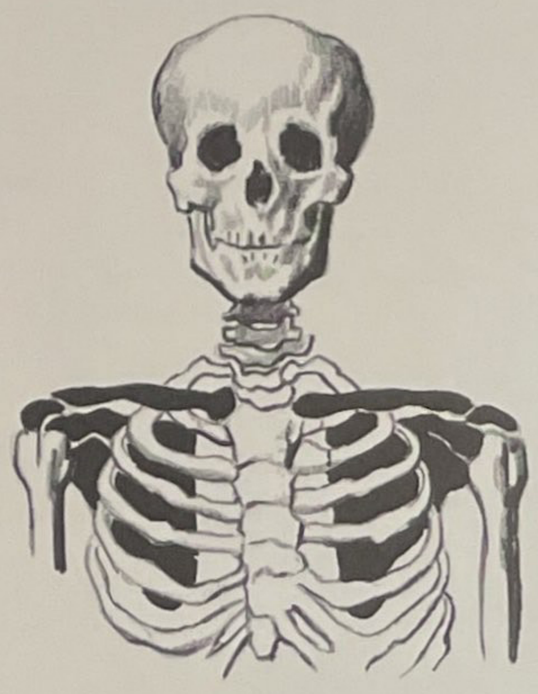
The back of the torso presents many prominences and depressions. This is due to the number of thin layers of muscle which cross and recross its bony structure. The movement of the back is limited to the extent that the bony structure of the spine allows. From the rear the torso presents a great wedge with its apex pointed downward, the base of the wedge being at the shoulders. This wedge is driven in between the buttresses of the hips and forms the most notable example of the interrelation of parts which is so universal in the human organism. From this region come all the important actions that the human body is capable of. The hip and pelvis form the points of transmission of action from the lower to the upper part of the body.

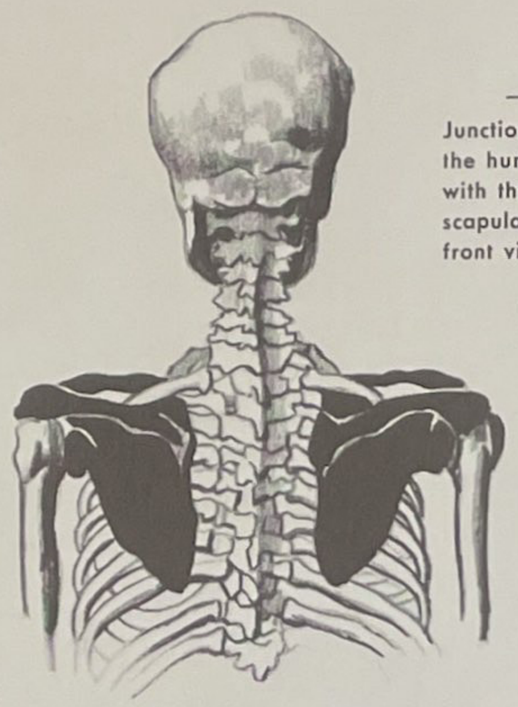
While the muscles of the chest help to form the breast, it is a large gland, known as the mammary gland, which actually gives the breast its individual shape. Notice that the male breast is square rather than rounded and that its bottom is level with the lower end of the breastbone.

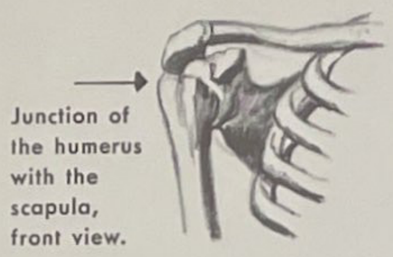
The breast of the female is noticeably different in its character. The rib cage, being smaller in the female, gives more space between the arm and the torso proper. The mammary glands in the female are much larger and fuller; however, the mistake is often made of drawing them too large. Another mistake in drawing the breasts from a front view is in placing the nipples in the center — they are at the side and near the outline of the breasts. The female breast projects like a half-sphere that is rather conical in shape, due to the nipples. The breast does not lie on the front plane of the chest but rather at the junction of the front and side planes. This causes the breasts to point slightly away from each other.

MALE  FEMALE

Looking down on both the female and male breasts — the female breasts do not lie on the front plane, but at the junction of the side and front planes. They are rather conical in shape and point slightly away from each other.

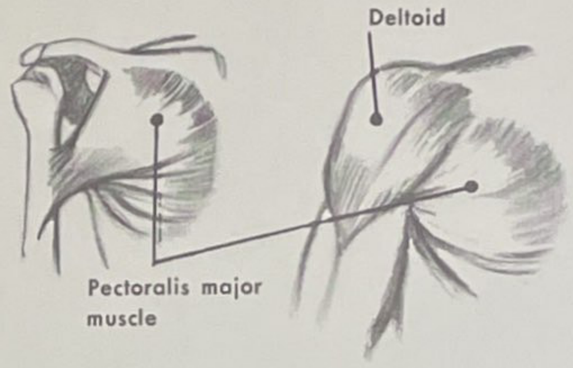




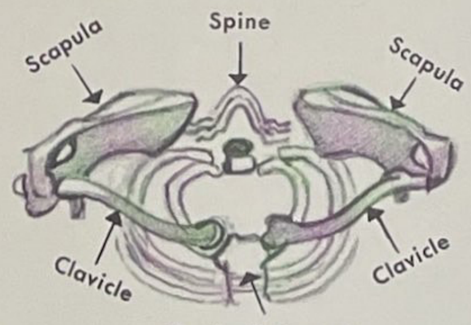


Junction of the humerus with the scapula, front view.

Junction of the humerus with the scapula, rear view.

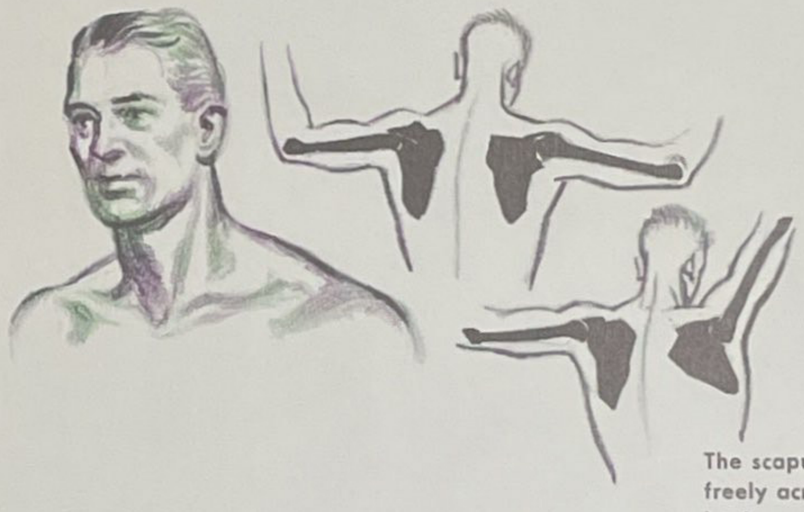


The entire length of the clavicles can be seen under the skin.



Head of sternum

Looking down on the shoulder girdle.



The scapula moves freely across the back.

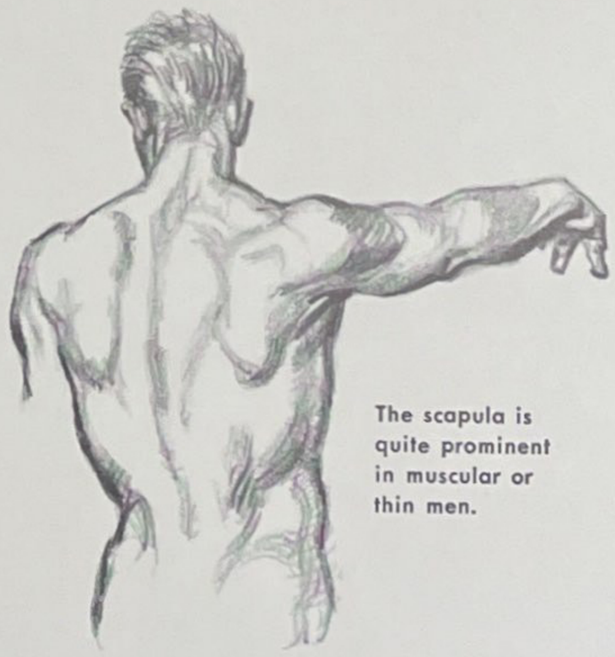
The shoulders and arms

The arms are connected to the shoulders by means of a bony framework known as the shoulder girdle. More variety of action takes place here than in any other section of the body. Yet, though the range of motion of the shoulder girdle seems limitless, its structure is easy to understand.

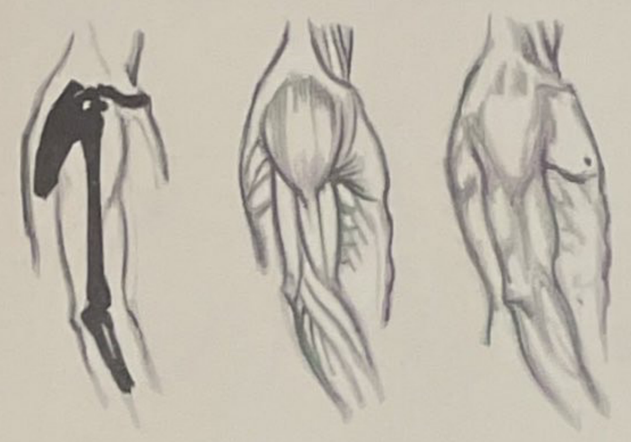
Five bones make up the shoulder girdle – the head of the sternum (breastbone), the clavicles (collar bones) and the two scapulas (shoulder blades). You must carefully study the junction of the humerus (upper arm bone) with the shoulder blade and of the shoulder blade with the collar bone to understand the planes in the living model. Parts of the other bones show on the surface, and understanding them will help you draw them.

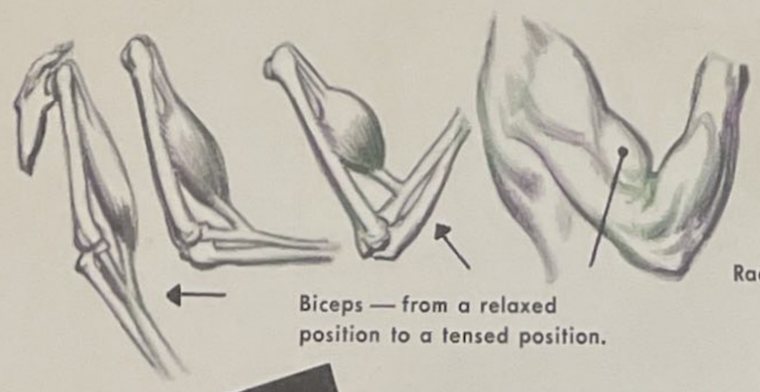
We can see the entire length of the collar bones under the skin – especially at a point not far from the end of the shoulder. There is always a small V-shaped depression at this point, marking the separation of the pectoral (chest) muscles from the deltoid (shoulder) muscles. We can also see the junction of shoulder blade and the collar bone, and under the deltoid muscle we can easily feel the head of the humerus, which forms the corner of the shoulder. The torso is widest at the shoulders.

The only connection the shoulder blades have with the chest is through the collar bones. These bones are attached to the breastbone in front and have a wide range of movement in all directions, including a slight rotary movement.

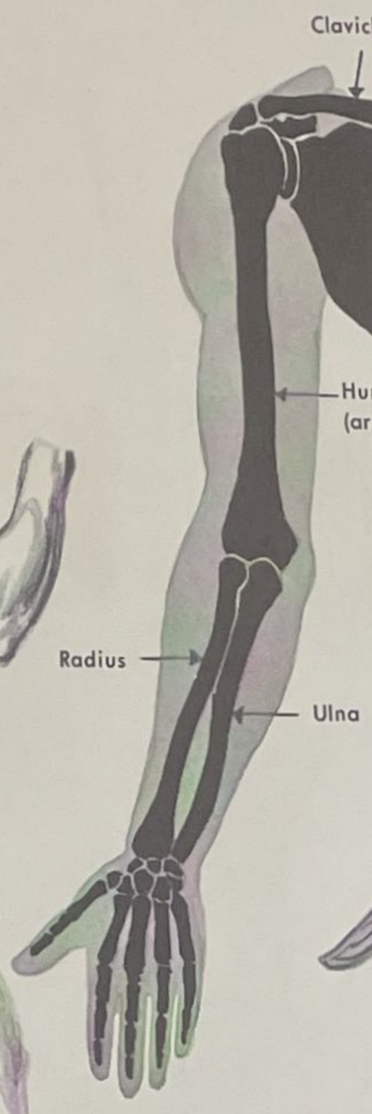


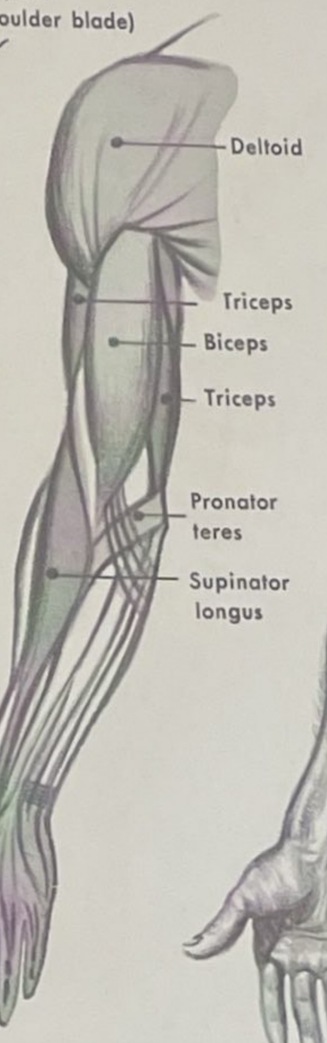
The scapula is quite prominent in muscular or thin men.

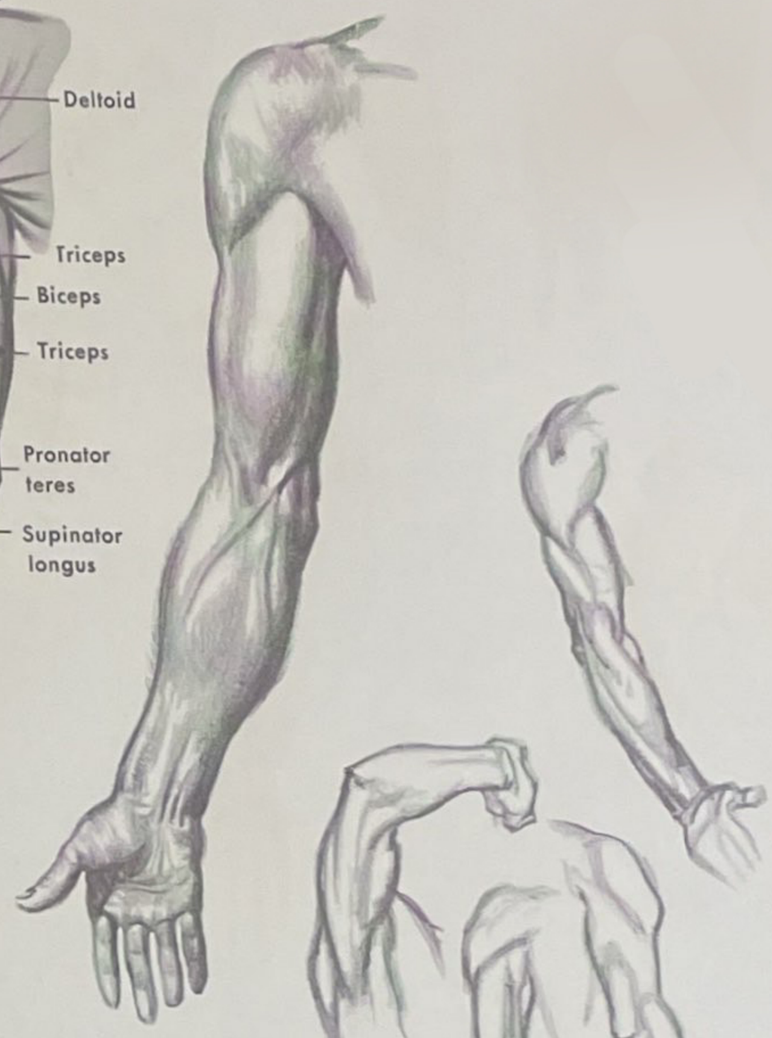




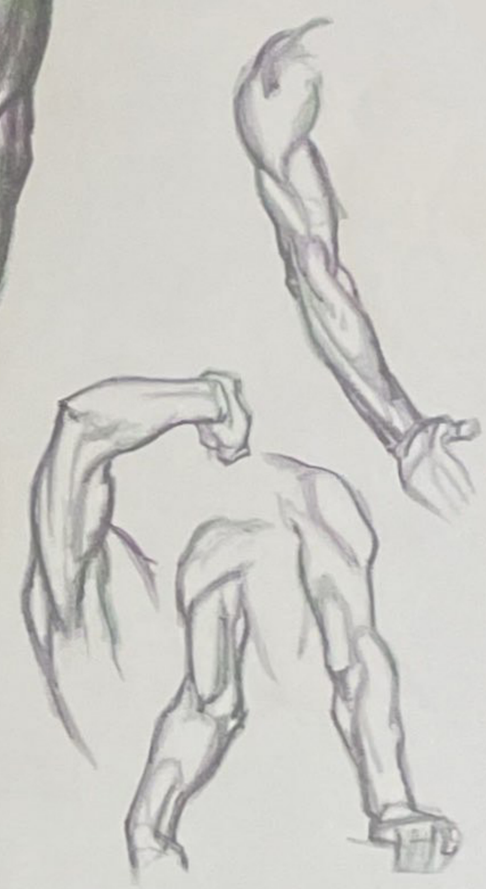
Biceps — from a relaxed position to a tensed position.



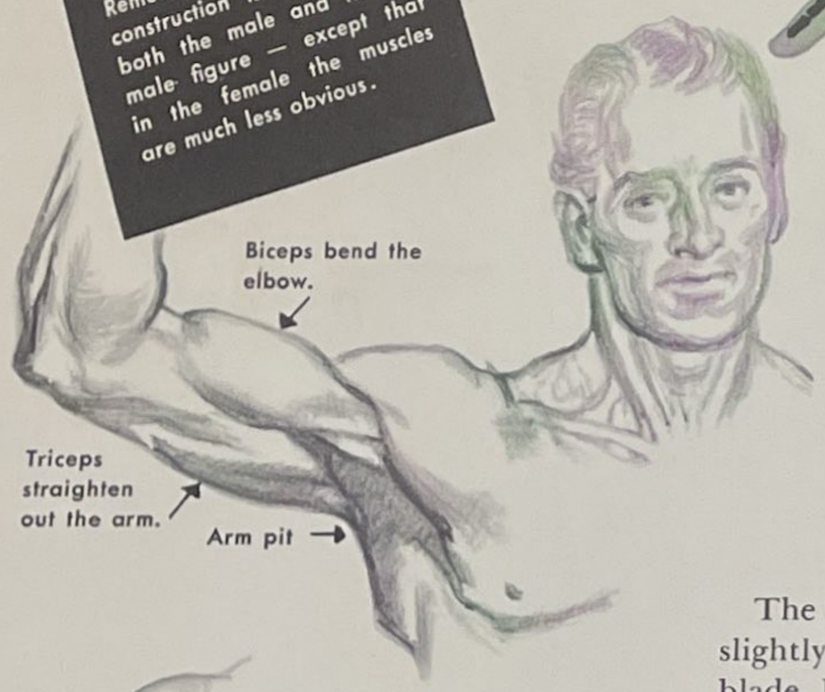


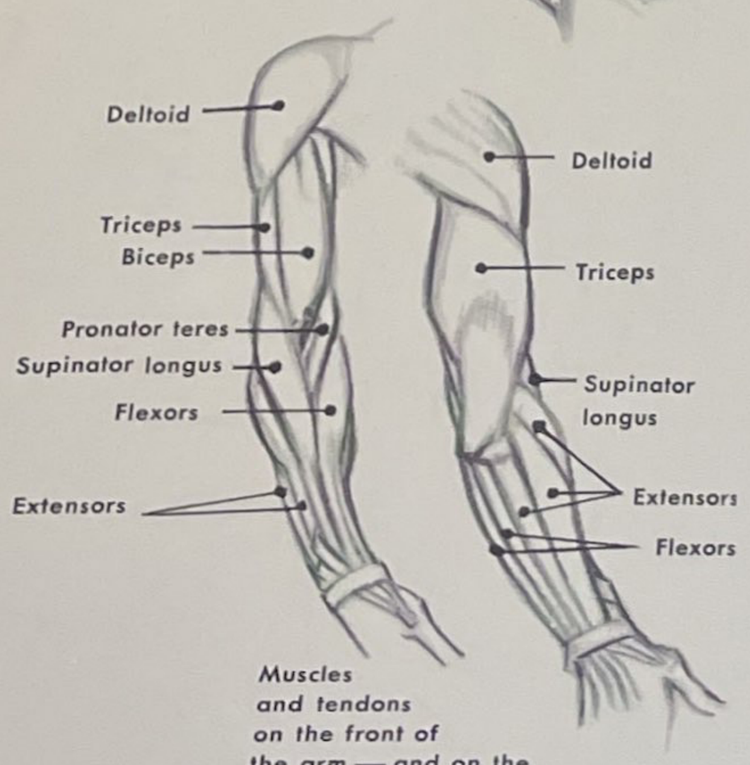


FRONT VIEW



Remember that the muscular construction is the same in both the male and the female figure — except that in the female the muscles are much less obvious.





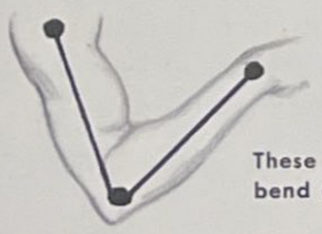
Muscles and tendons on the front of the arm — and on the back of the arm.

The base of the arm is in the shoulder girdle. Its one bone, the humerus, is slightly curved, with its head fitting into the cup-shaped cavity of the shoulder blade. It has a ball and socket joint which is covered with a lubricating capsule held together by strong membranes and ligaments which cross at different angles and brace the arm as well as allow it great freedom of movement. The lower end terminates at the elbow in a hinge joint.

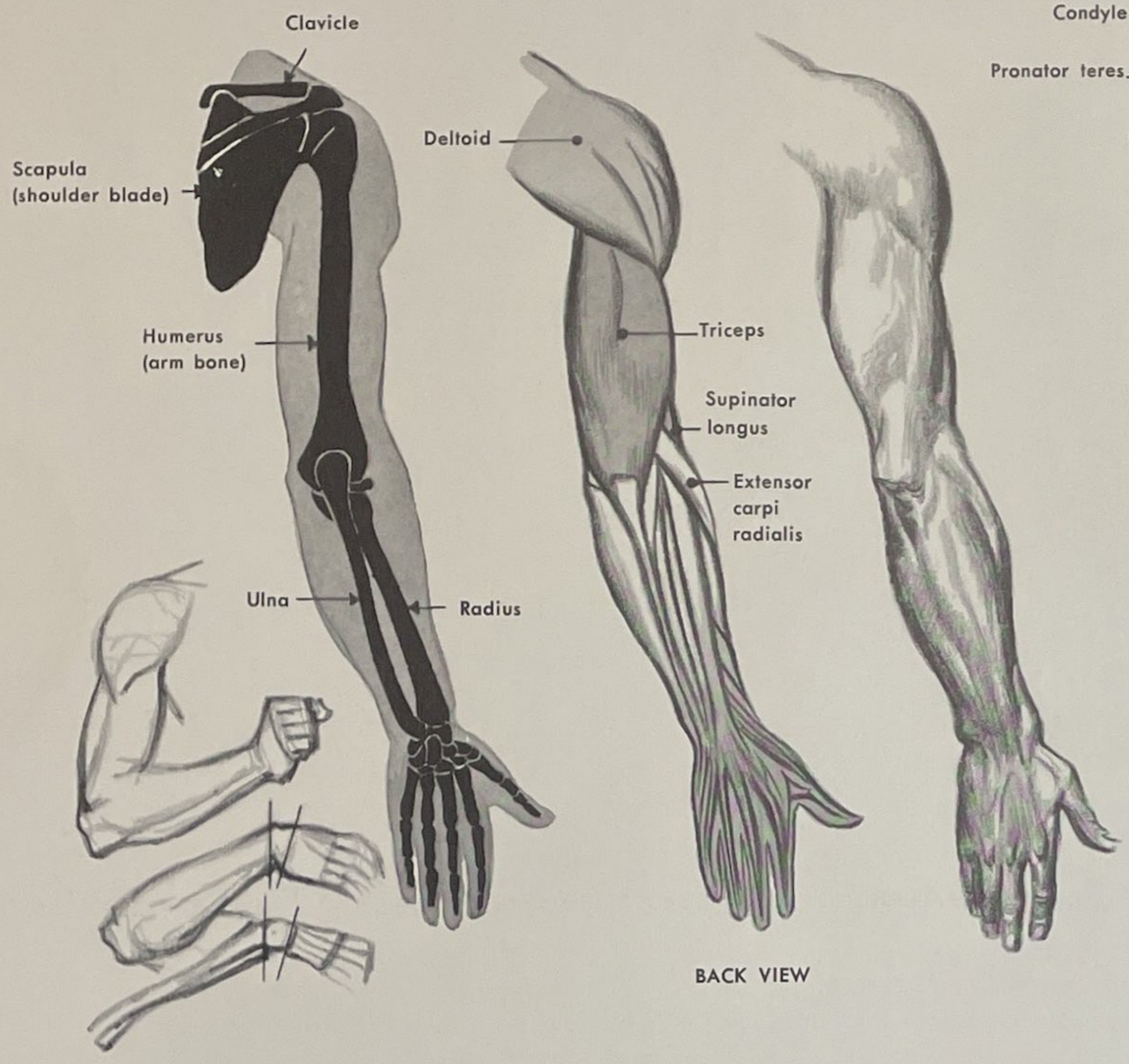
The hollow of the arm is made into a deep pit by the pectoralis major (great breast muscle) in front, and the greater latissimus dorsi behind. This hollow is commonly called the arm pit.

The mass of the shoulder comes down as a wedge and sinks into the outer arm, halfway down. The muscle that is placed in front of the arm is a two-headed muscle and is called the biceps; the muscle on the back of the arm is three-headed and so is called the triceps. The biceps bends the elbow and flexes the forearm. When doing this the biceps becomes shorter and thicker. The triceps muscle runs the entire length of the humerus on the back of the arm. This muscle acts in opposition to the biceps and straightens out the arm.

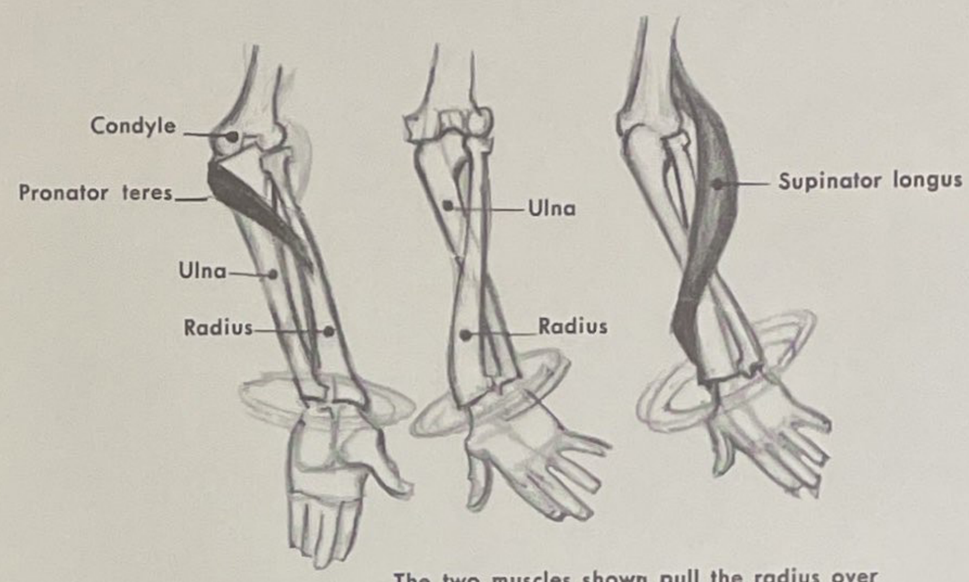
The muscles of the forearm may be divided into two groups, flexors and extensors. These operate upon the wrist and hand through tendons, which pass



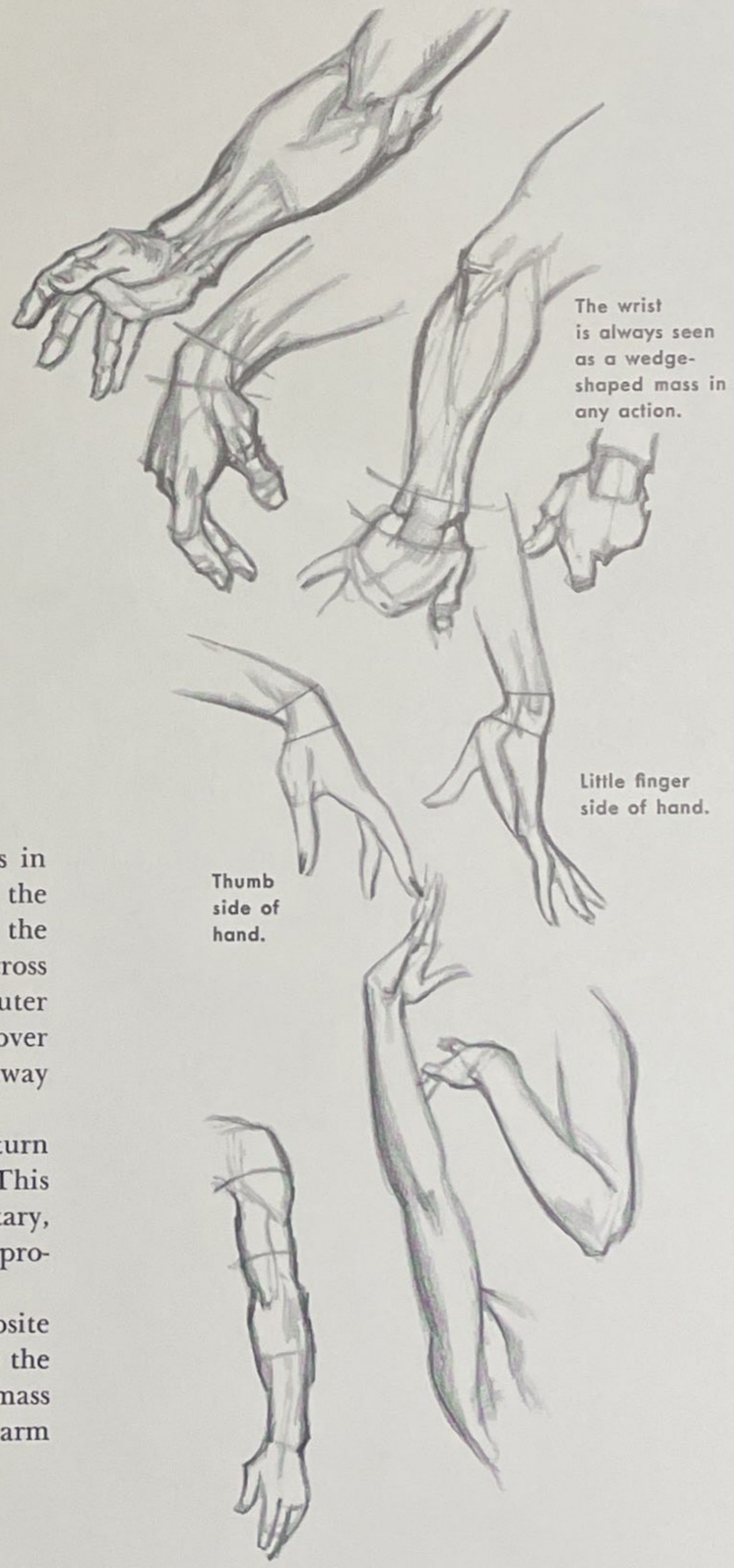
These points bend and twist.



BACK VIEW



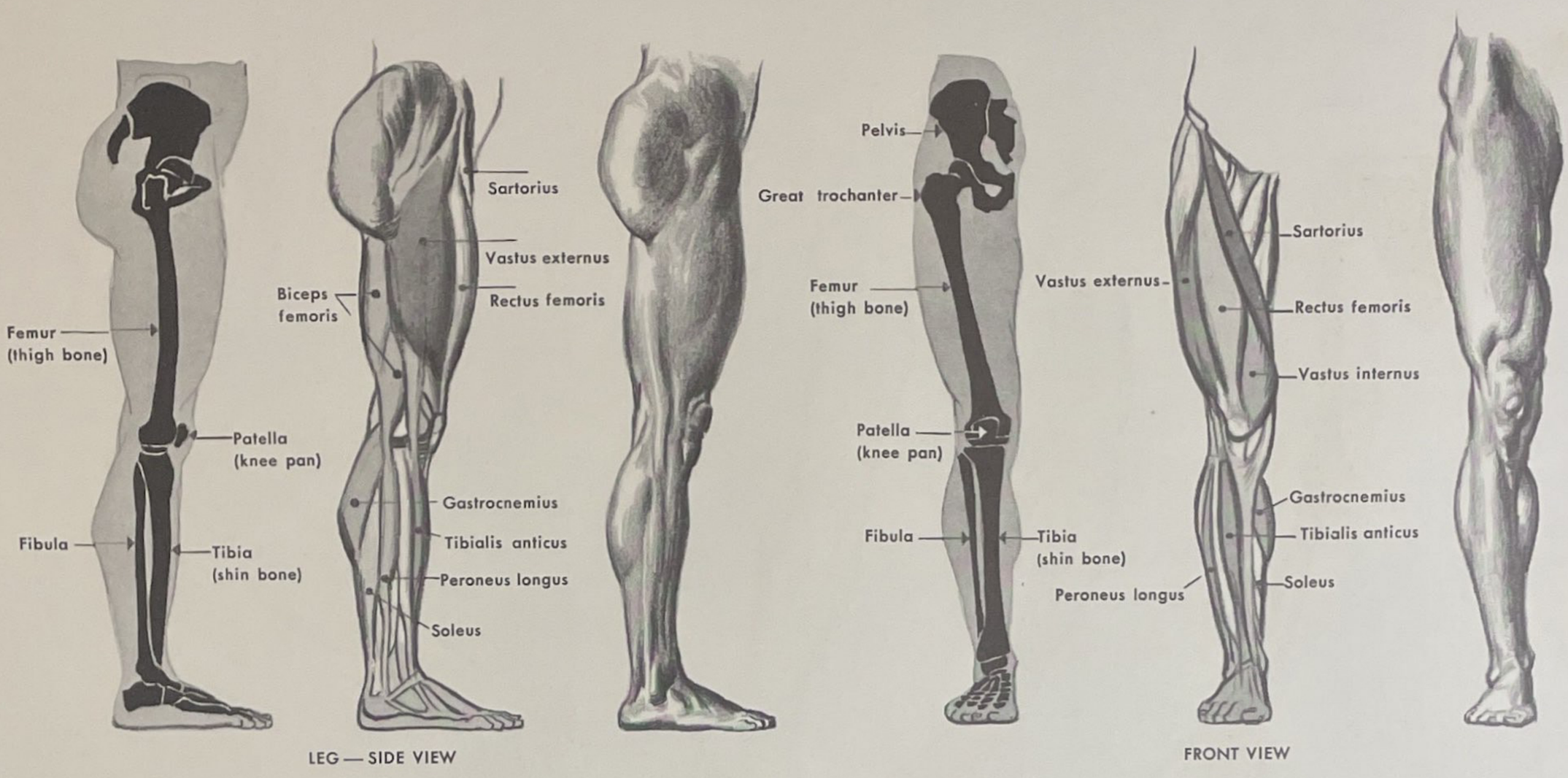
The two muscles shown pull the radius over the ulna and back again in a rotary motion.

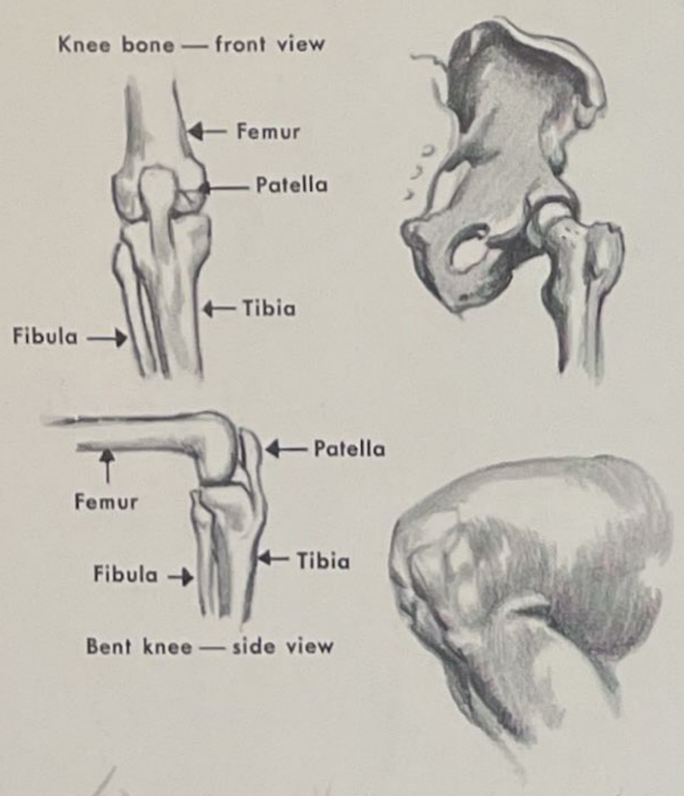


under the wrist band or annular ligament. The two most important muscles in the forearm are, first, the supinator, the long outside muscle extending from the wrist to one-third the way up the humerus (upper arm bone), and, second, the pronator teres, a short, round muscle which passes obliquely downward across the forearm from the inner condyle of the humerus to halfway down the outer border of the radius. These two muscles pull the radius with a rotary motion over the ulna and back again, carrying the thumb side of the hand toward or away from the body.

The hand does not join the arm directly, but joins the wrist, which in turn attaches to the arm and is always seen as a wedge-shaped mass in any action. This wrist joint is one that is universal in its scope, permitting it to move in a rotary, up-and-down or side-to-side movement. In unison with the supinator and pronator of the forearm, its range of action is almost unlimited.

From the armpit, where the arm detaches itself from the body, just opposite its greatest fullness at the deltoid, the arm gradually gets smaller in width to the elbow. This is more noticeable in profile than in the front view. The fleshy mass of the forearm near the elbow widens in excess of the breadth of the upper arm and in turn gets narrower again at the wrist.





The leg and foot

Basically, the leg is made up of three parts – the thigh, lower leg and foot.

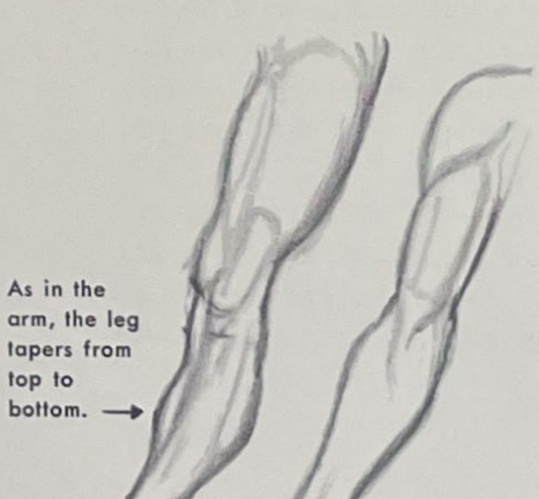
The biggest bone in the body is in the leg. This is the femur or thigh bone. It attaches to the pelvis very much the way the upper arm bone attaches to the shoulder blade – by a ball that fits into a socket in the outside edge of the pelvis. However, since our legs must support our weight as well as move, the socket is much deeper and the movement is less than in the shoulder joint. Actually, we sacrifice some flexibility of movement for extra strength in the hip joint.

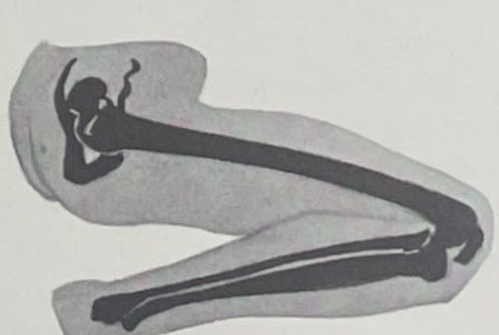
The thigh bone ends at the knee in a hinged joint which permits only backward and forward movement.

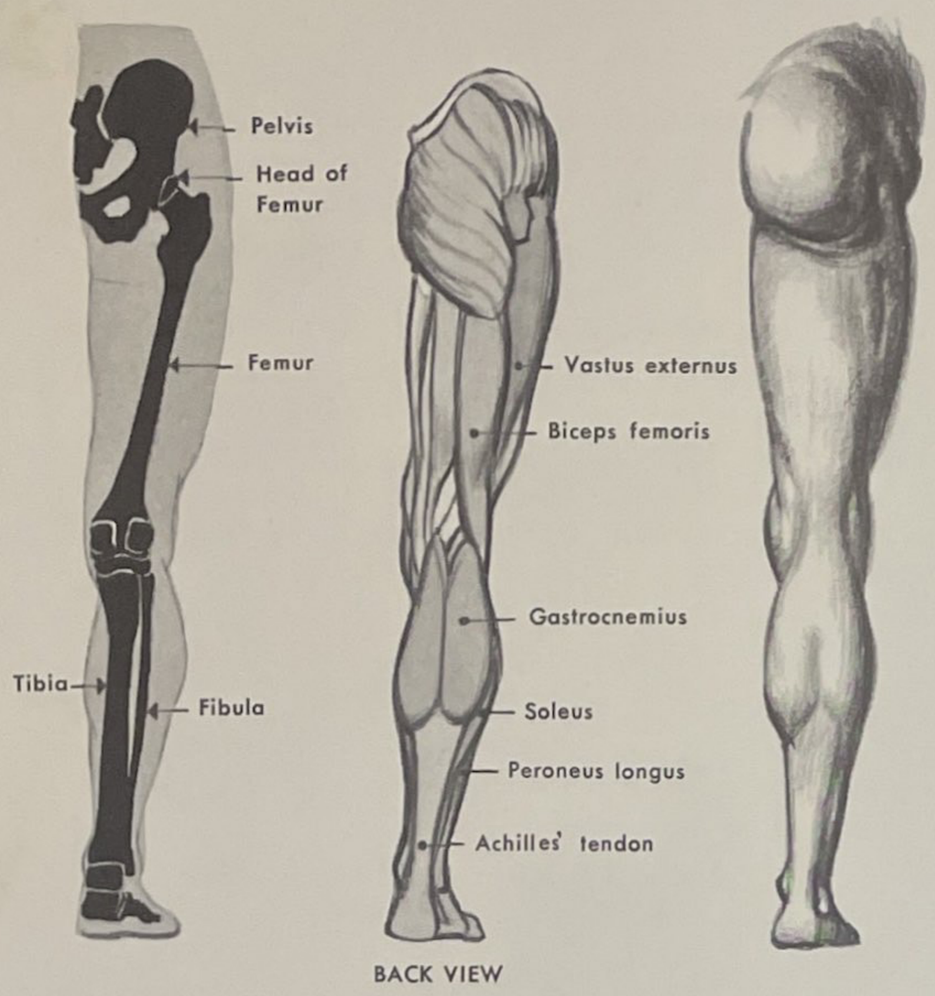
Like the arm, the whole leg tapers from top to bottom. The tapering is even greater than in the arm because of the heavier mass of the thigh. The upper leg tapers to the knee, widens at the calf and then tapers sharply to the ankle.

When we are in a normal standing position with the full weight of the body on the legs, our knee is back of a line dropped from the front of the thigh.

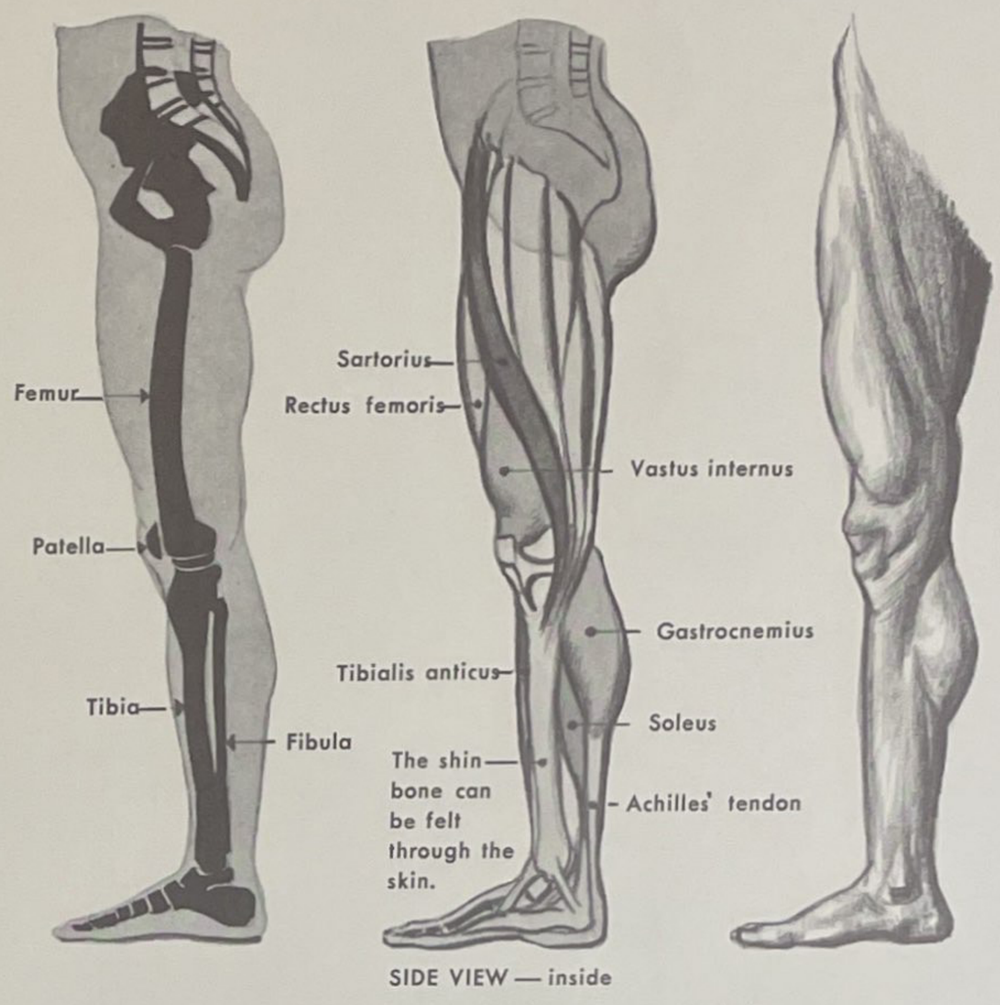
The knee joint from the back.


As in the arm, the leg tapers from top to bottom. →


The thigh bone ends at the knee in a hinged joint.



BACK VIEW

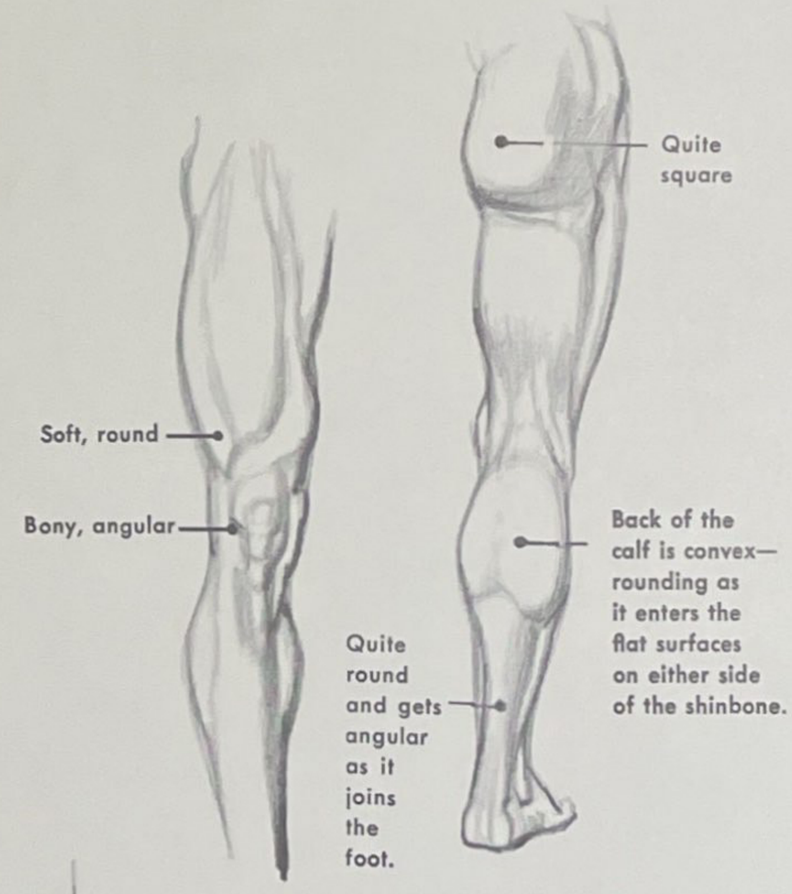


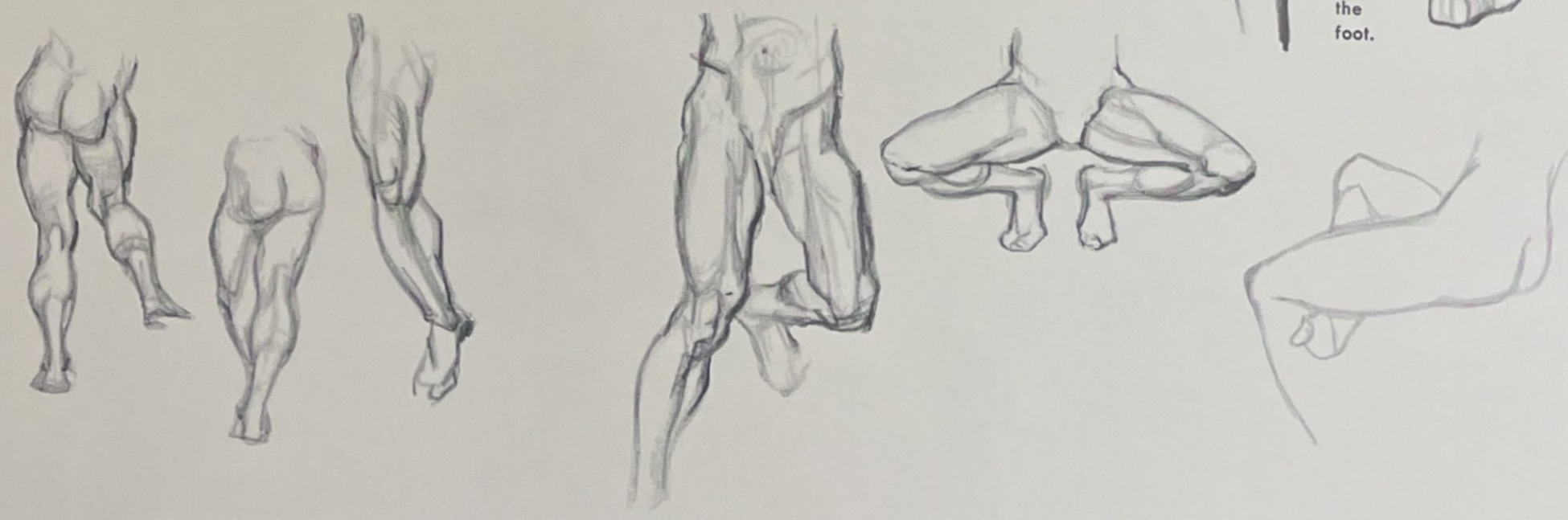
SIDE VIEW — inside

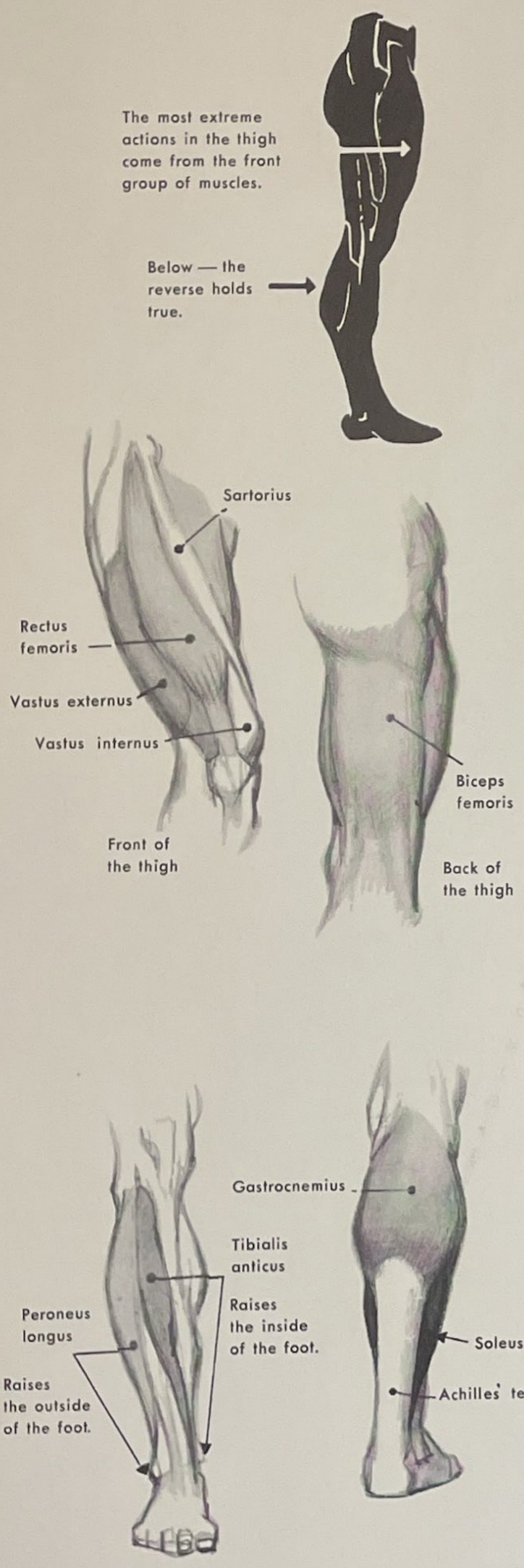
The leg does not stand in a strictly vertical position. As a whole it slants back from the top of the thigh to the ankle.

Viewing the thigh from the side, we see a full curve at the front while the back is fairly straight. In the lower leg the opposite is true; here the front or shin is flatter, the calf at the back is full and rounded. Whether we are looking at the leg from the front or back, it shows an inward slant from top to bottom.

The thigh is well rounded, but as it tapers to the knee the planes become angular. Directly above each side of the knee they are quite flat. When the knee bends, we see its broad bony surface clearly. From the back, the hips and buttocks look rather square as they overhang the thighs. The backs of the calves are curved, rounding as they enter the flat surfaces on either side of the shinbone (tibia). The shaft of the leg just above the ankle is quite round but changes into more angular surfaces just as it joins the foot. The Achilles' tendon creates the broad flat plane at the back.


Quite square
Soft, round
Bony, angular
Back of the calf is convex— rounding as it enters the flat surfaces on either side of the shinbone.
Quite round and gets angular as it joins the foot.



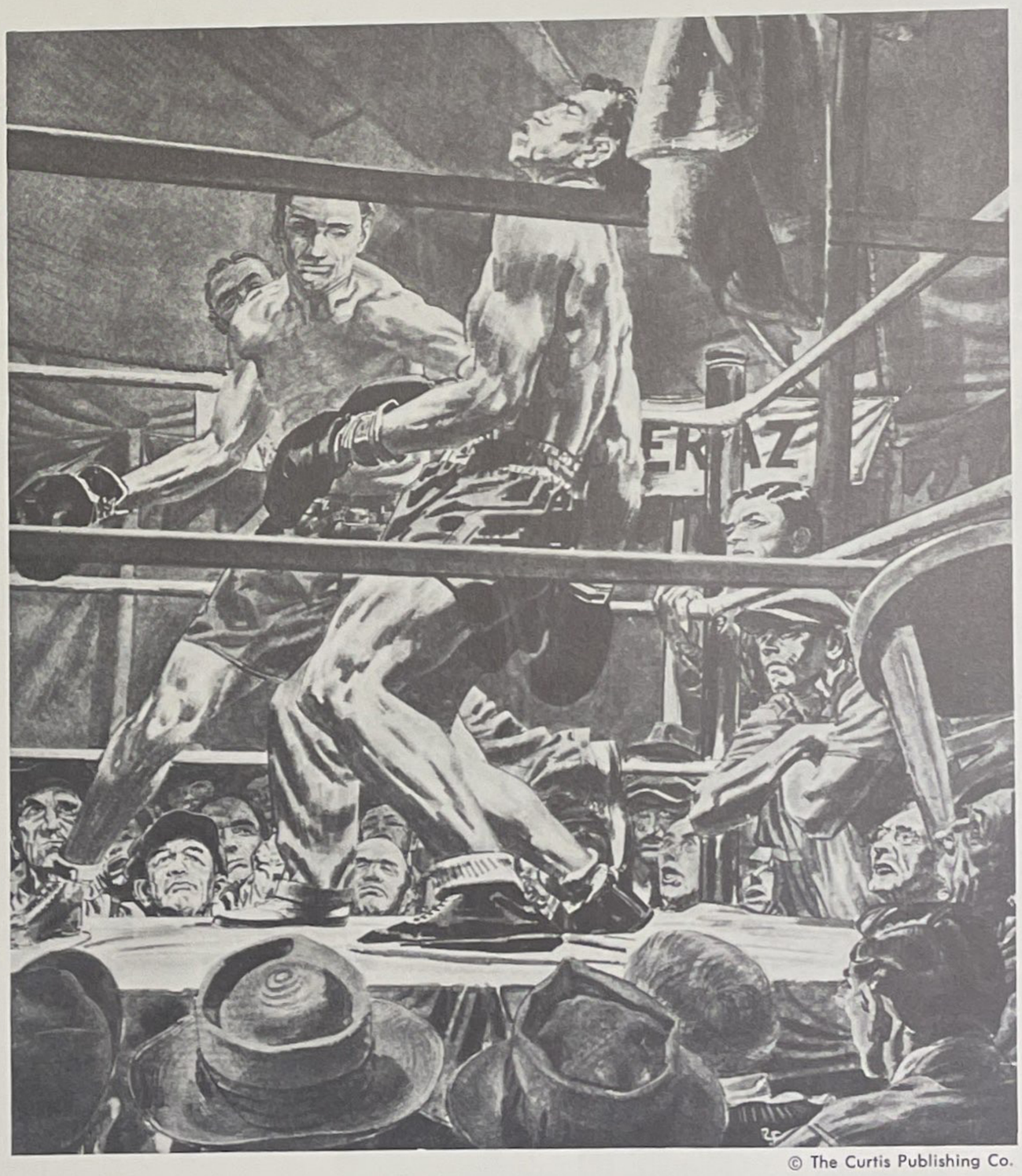


The outside line showing the contour of the thigh is the most varied. Note that, in profile, the fullness of the front of the thigh must always be insisted upon; the most usual and more extreme actions in the thigh come from the front group of muscles and not from those on the back of the thigh. Below the knee, the reverse holds true.

The important muscles of the thigh, and those which most affect its outward appearance, are, first, the rectus femoris, the straight muscle of the thigh bone; second, the vastus externus, the large muscle on the outside; third, the vastus internus, the large muscle on the inside. These three primarily extend the leg and are the most visible on the surface. The sartorius flexes the leg on the thigh and the thigh on the pelvis and rotates the thigh outward. In back of the thigh we have the biceps femoris, which bends the knee and rotates the thigh outward. The most pronounced muscles on the leg below the knee and in front are the peroneus longus, which raises the outside of the foot and extends the ankle, and the tibialis anticus, which raises the inner side of the foot while it flexes the ankle.

Dominating the back of the leg, we find the gastrocnemius, which is the calf muscle. It ends below in a broad tendon joining with the soleus muscle to form the Achilles' tendon. This is attached to the heel bone.

The bones of the lower leg join the foot at the ankle in such a way that the weight of the body is over the arch of the foot rather than the heel.



This *Saturday Evening Post* illustration by faculty member Robert Fawcett is an excellent example of anatomical knowledge.

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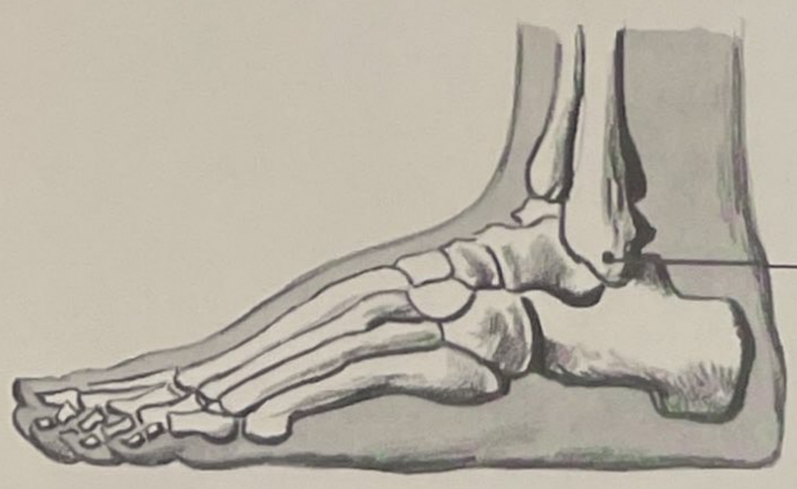
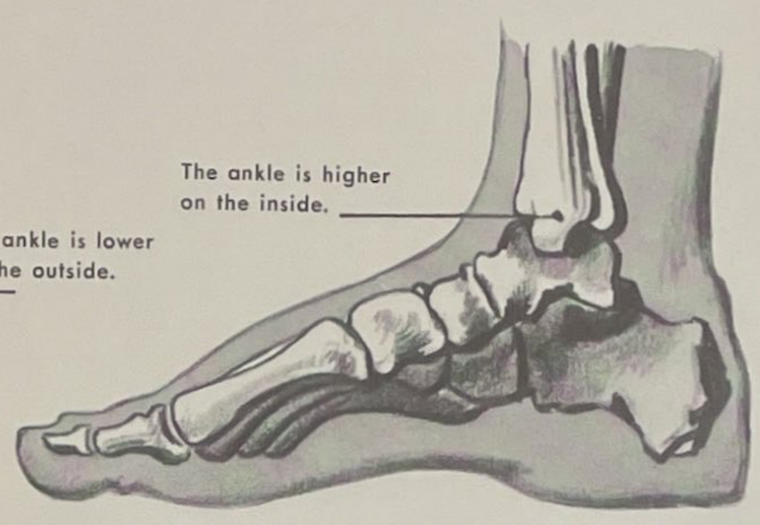
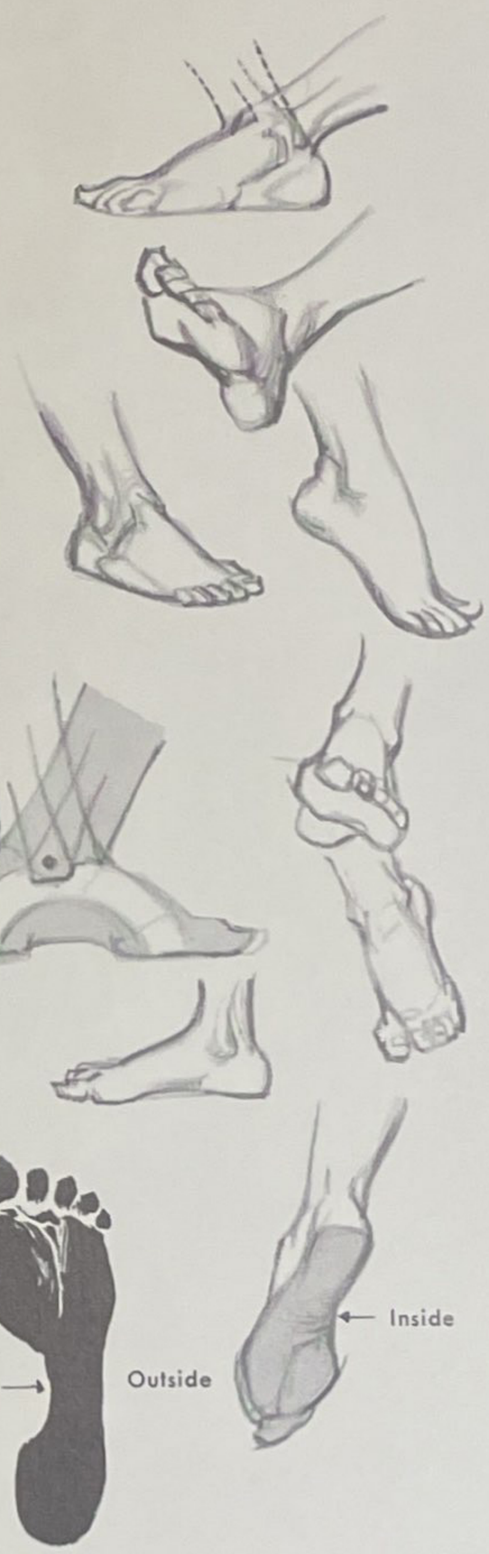


The outside of the foot — note that it lies flat.



The inside of the foot — note that the arch raises the bottom center of the foot from the floor.



The foot

The foot is beautifully designed for its main job – bearing the weight of the body. It is constructed as a series of arches. These let it act somewhat like a spring in transmitting the body weight to the ground or floor.

The picture above of the inside of the foot shows the main arch between toe and heel. Notice that the bones of the toes also form smaller arches. When we view the foot from the front we see an arch that curves downward from the inside to the outside of the foot.

At the bottom of the inner surface of the foot only the edge along the heel and ball of the foot touches the ground. The inside of the arch is raised while the bottom of the outer surface touches all around.

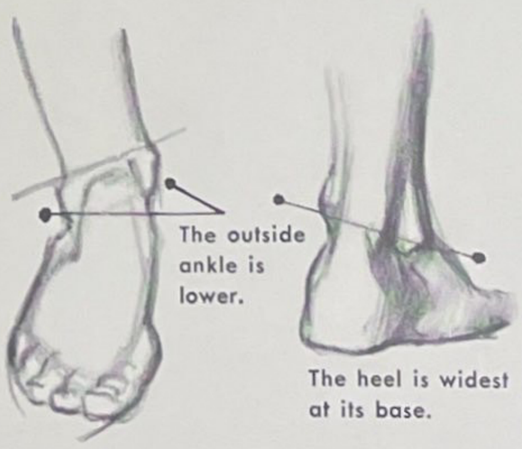
In studying the sole of the foot, we can plainly see the points of contact with the ground. The first one is at the ball of the foot and the undersurface of the toes. The ball of the foot is divided, the inner portion of the ball being larger than the outer one. Next we see the outer rim of the foot connecting the ball with the rounded heel. The inner surface of the foot is nearly vertical as it rises from the hollow of the arch of the foot below the inner ankle. The top of the foot or instep extends from the bottom of the leg to the toes in a triangular form, its inner border rounding into the side of the foot. This surface is not as flat as the others and slopes toward the outer ankle. Here the ankle also protrudes but is on a lower level than the inner ankle. The back of the heel is widest at its base and tapers slightly upward to join the Achilles' tendon, which connects it with the leg.

By studying, observing and checking carefully all the accompanying drawings as you read, you will more thoroughly learn what you must remember. An even better method is to copy all the drawings, studying all the masses, shapes and forms – where they start and end and how they affect the outer form of the figure.

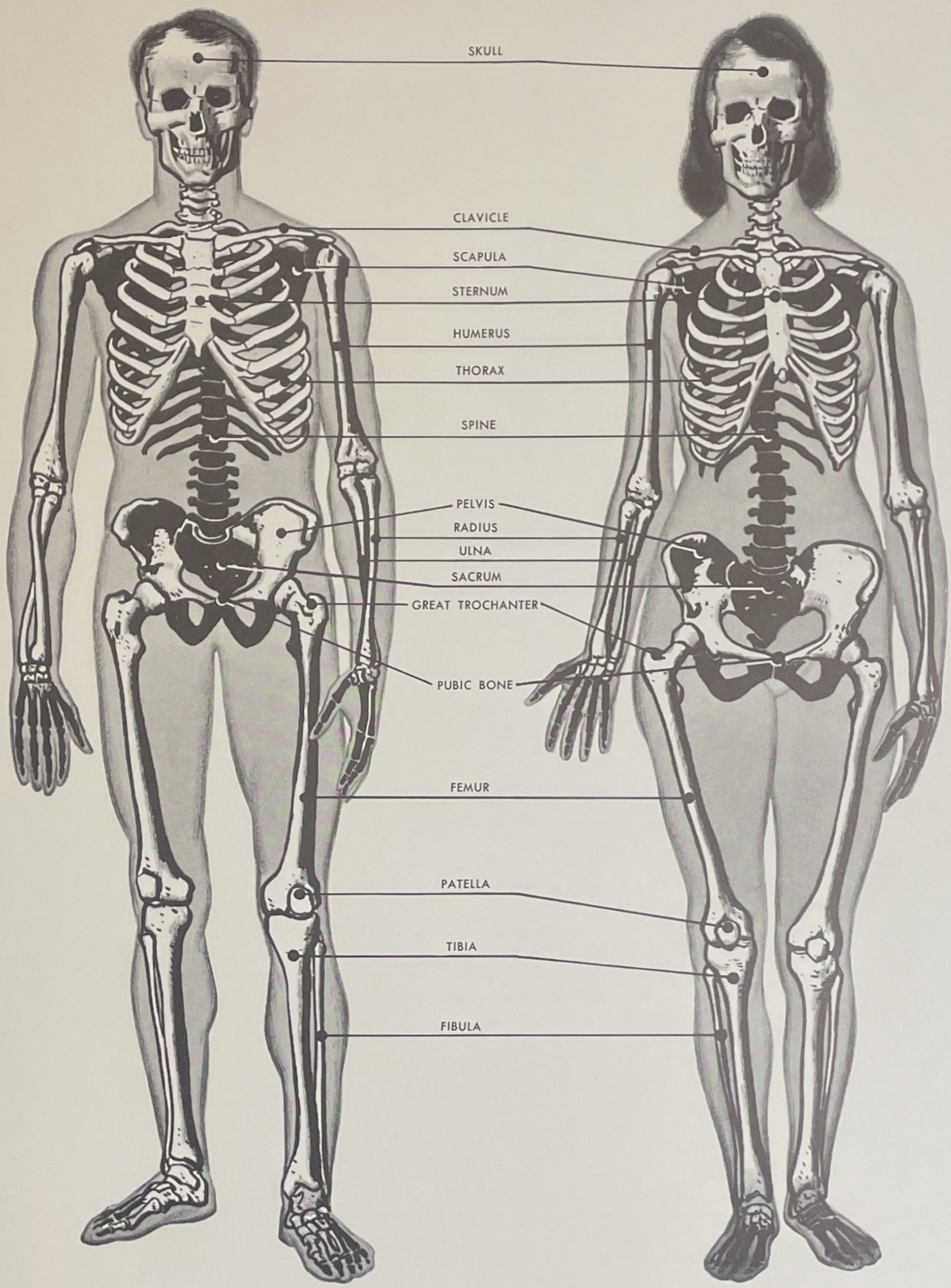
Think while you draw – about WHAT you are drawing.

You learn to draw by drawing

With the heels together the feet make a perfect arch to support the body.



The heel is widest at its base.



The skeleton

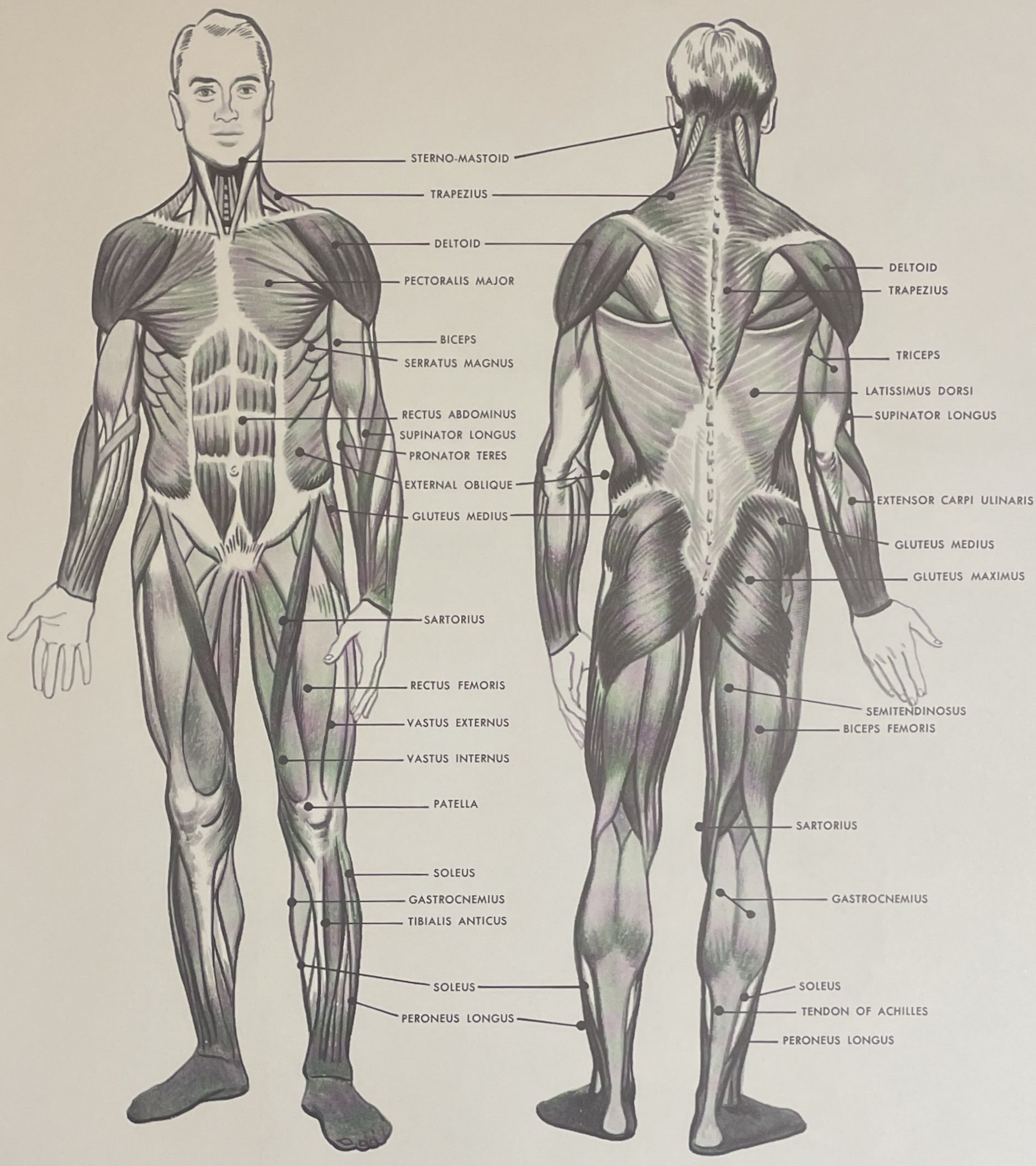
These drawings show the differences between the male and female skeletons and explain why the surface forms are different in the sexes.

The bones of the female are smaller and smoother, and more heavily covered with fatty tissue. They are less apparent on the surface than the larger, coarser bones of the male skeleton.

The female has a smaller, narrower rib cage with a shorter, more curved breastbone. The female's shoulders are not so broad as the male's and her collar bones are straighter and smaller.

The female has a longer torso and shorter legs than the male. Her pelvis is broader and shallower, and this makes the hips much wider. Note the greater distance from the top of the pelvis to the rib cage. The pelvis in the male is about the same width as the rib cage, while the female pelvis is wider than the rib cage.

Observe that the center of the female figure is above the pubic bone. In the male this point is the center of the figure.



The muscles of the body

These front and rear view diagrams of the male figure show the main muscles that influence the surface appearance of the body. The female has exactly the same muscles, but they are smaller, like her bones, and are less developed; her muscles are also covered by a thicker layer of fat.

Learn the size, position and action of these muscle groups. Knowledge of the muscles and their action will make it easier for you to interpret what you see in a real model or a photo.

Remember, however, that there is no need to memorize the names of all these muscles. It is much more important to know what they are, where they begin and end, and what they do.

Keep in mind that these are diagrams, not drawings of the appearance of the figure. Use them only for study. When you draw the figure, you should show no more anatomy than appears on the surface. This may be a large amount if you are drawing an athlete – much less when you draw a woman's body.

Study and make drawings from these and other photos of the human figure, using the information on bone and muscle structure you have learned so far. As you draw the forms of the figure, do not make too much of the underlying anatomy. Your figures should be solid, and they should show bone where there is bone, flesh where there is flesh — but undue attention to anatomy should never be allowed to destroy the basic forms.

Figure drawing, step by step — R.F.

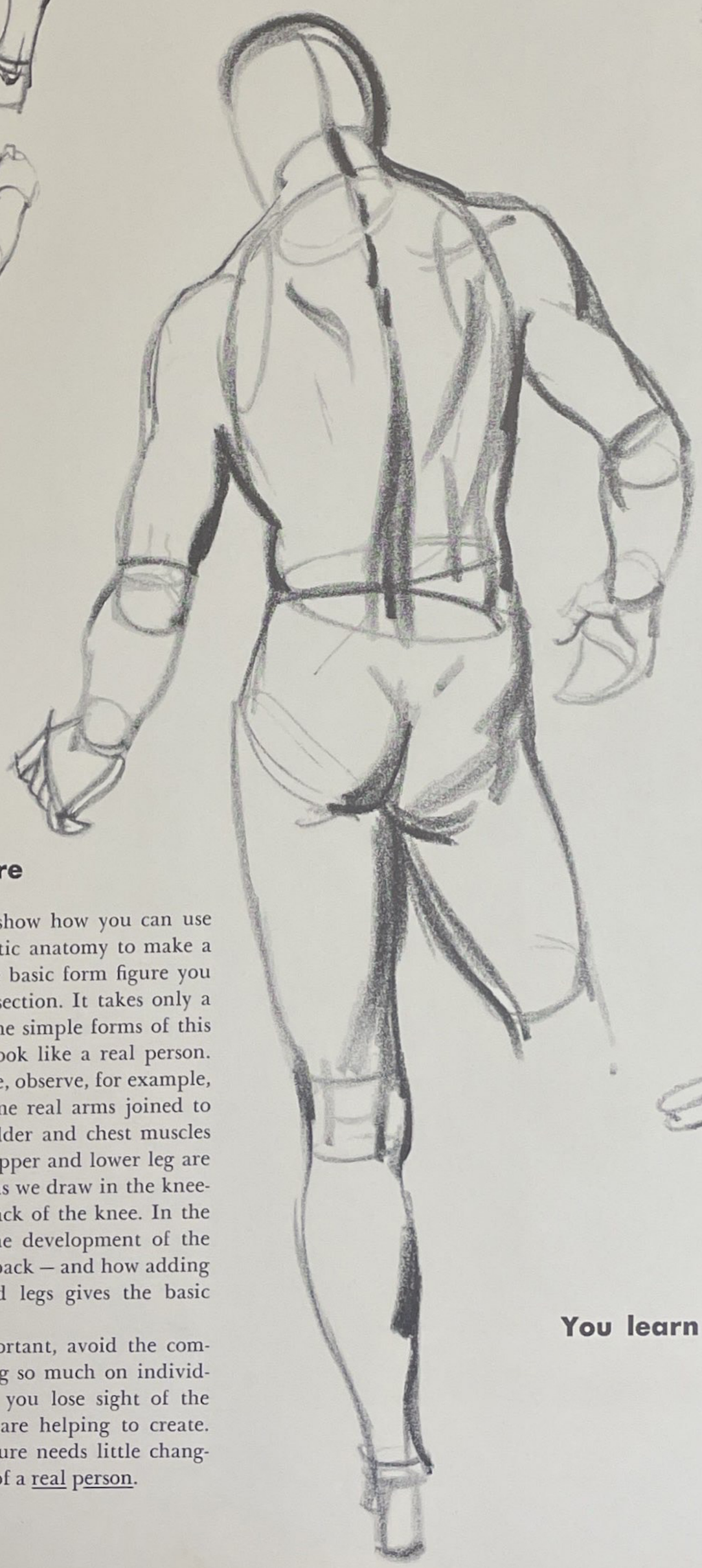
(Robert Fawcett)

Let us assume that you wish to make a drawing of the figure using the girl in this photo as your model. Before beginning to draw, look the figure over carefully. Study the main lines of action, the direction of the arms, legs, and torso. This preliminary observation is a very valuable part of your whole approach to drawing the figure. When you have a good grasp of your subject, start to draw.

1 The first step, after a careful study of the figure, is to sketch its basic forms. As you draw each part of the body, check its form and proportions against those of the other parts.

2 Now, begin to modify the simple basic figure forms. After careful observation of the model, draw the effect that the bone and muscle forms have in modifying the basic figure in Step 1. Keep in mind, though, that the main job here is to draw the female figure, and don't let the anatomy destroy the essential fleshiness of the soft feminine forms.

3 In the finished drawing, tones of light and shade add realism and solidity to the figure. Note that the shadow edges on thighs and buttocks are wide and soft, while those around bony areas like the shoulder blades, hands, feet, and elbows are crisper and harder. Be sure to keep a clear separation of tone or a value difference between the light and shadow planes to accentuate the form.



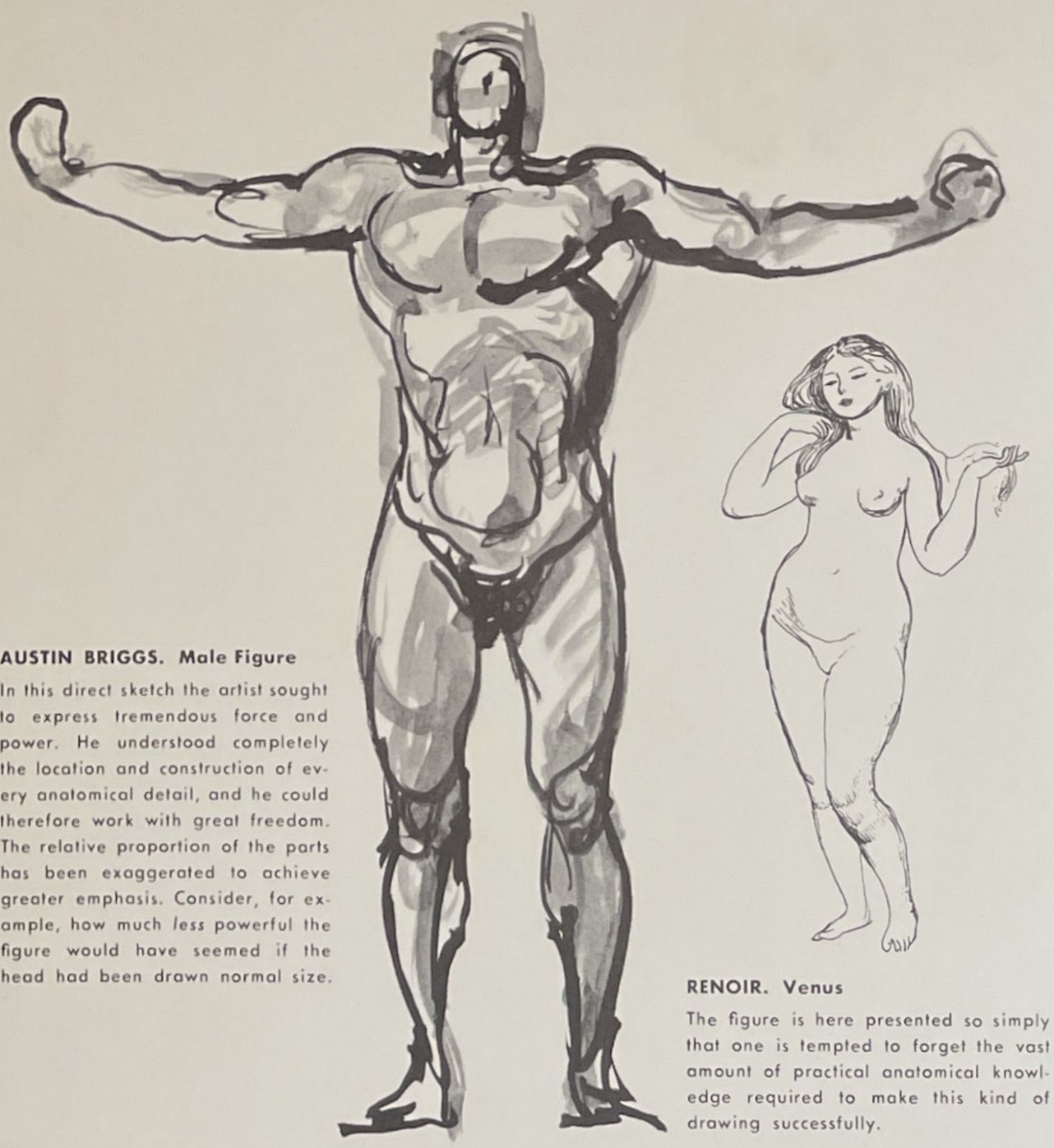
"Humanizing"
the basic form figure

The drawings on this page show how you can use your new knowledge of artistic anatomy to make a real human figure out of the basic form figure you learned about in an earlier section. It takes only a few pencil lines to develop the simple forms of this basic figure so it begins to look like a real person.

In the running figure above, observe, for example, how the arm cylinders become real arms joined to the torso when we add shoulder and chest muscles – and how the cylinders of upper and lower leg are transformed into actual legs as we draw in the kneecap and the tendon at the back of the knee. In the figure at the right, notice the development of the muscles in the middle of the back – and how adding muscles in the buttocks and legs gives the basic forms a more human shape.

Although anatomy is important, avoid the common mistake of concentrating so much on individual bones and muscles that you lose sight of the important large forms they are helping to create. Remember that the basic figure needs little changing to turn it into a drawing of a real person.

You learn to draw by drawing



AUSTIN BRIGGS. Male Figure

In this direct sketch the artist sought to express tremendous force and power. He understood completely the location and construction of every anatomical detail, and he could therefore work with great freedom. The relative proportion of the parts has been exaggerated to achieve greater emphasis. Consider, for example, how much *less* powerful the figure would have seemed if the head had been drawn normal size.

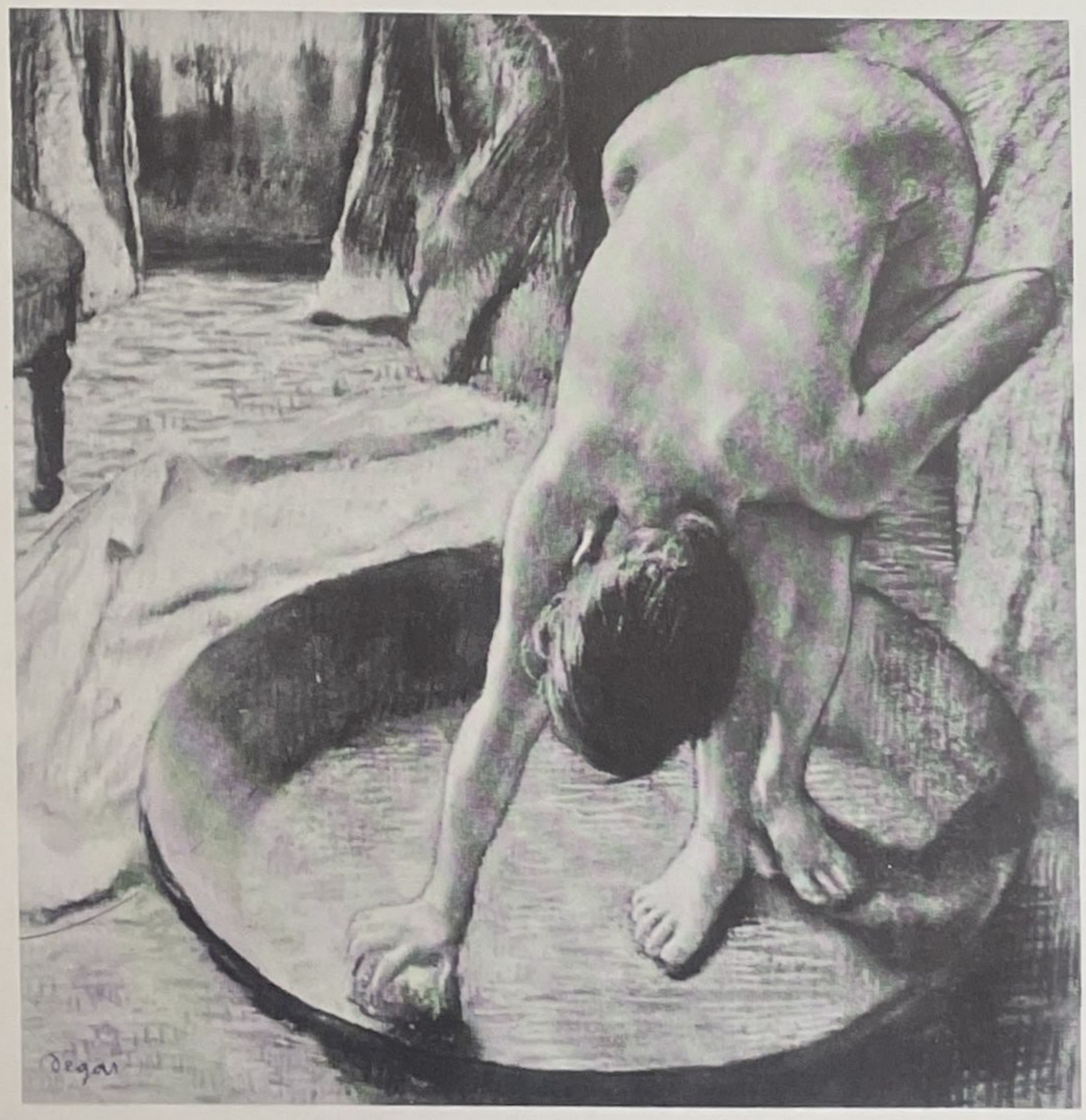
RENOIR. Venus

The figure is here presented so simply that one is tempted to forget the vast amount of practical anatomical knowledge required to make this kind of drawing successfully.

NATOIRE. Nude

There is almost masculine heaviness in the arms and legs, and the head seems smaller than normal. The artist obviously had a thorough knowledge of anatomy, however, and introduced distortions in this graceful figure deliberately to achieve a more monumental quality.

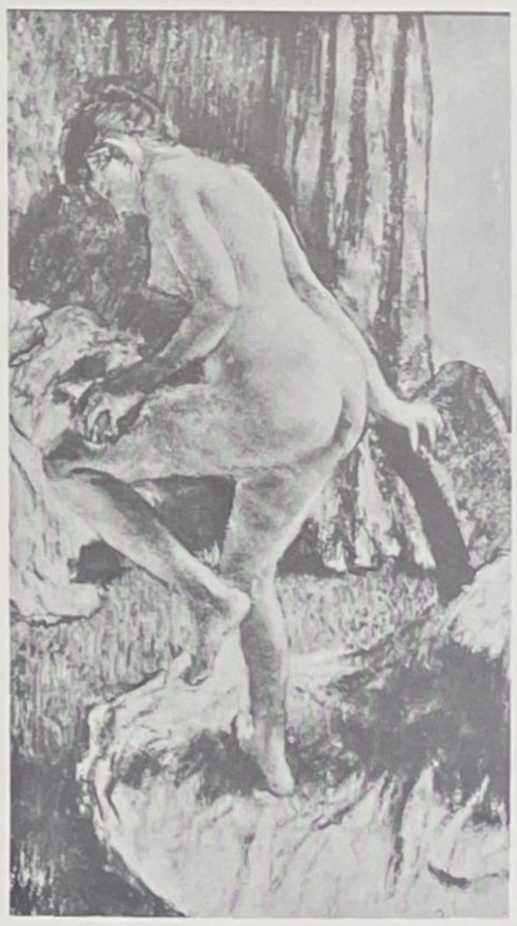
Collection of The Hill-Stead Museum



DEGAS. The Tub

The artist did not hesitate to turn this difficult and unusual pose into a drawing. Because of his extensive knowledge of anatomy he could handle easily a problem which might well have discouraged a lesser draftsman.

Durand-Ruel, Paris



DEGAS. After the Bath

Very little anatomical detail as such appears in this drawing, but because the structure of the body is so well understood the pose seems completely convincing and natural.